

Inequality in 1,600 Popular Films: Examining Portrayals of Gender, Race/Ethnicity, LGBTQ+ & Disability from 2007 to 2022

Dr. Stacy L. Smith, Dr. Katherine Pieper
& Sam Wheeler

with assistance from
Ariana Case, Zoily Mercado, Katherine Neff,
Zoe Moore, Karla Hernandez & Sarah Neff

August 2023

USC Annenberg
Inclusion Initiative

INEQUALITY IN 1,600 POPULAR FILMS

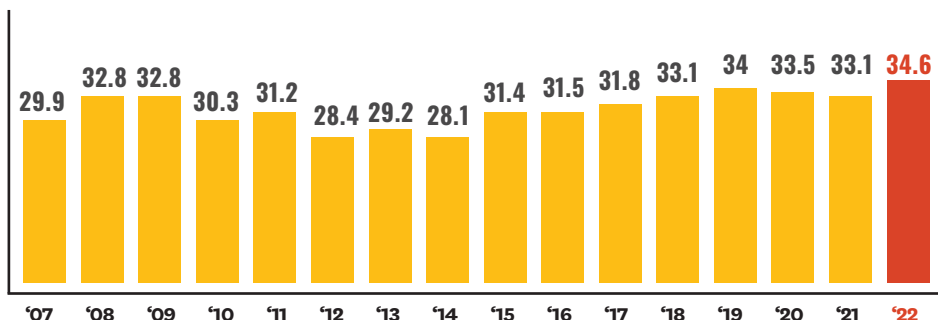
ANNENBERG INCLUSION INITIATIVE

USC ANNENBERG

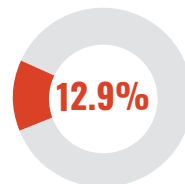
📷 🐦 @Inclusionists

NO PROGRESS FOR GIRLS & WOMEN ON SCREEN

Prevalence of girls and women as speaking characters across 1,600 films, in percentages



Percentage of 1,600 films with Balanced Casts



Ratio of males to females

2.17 : 1

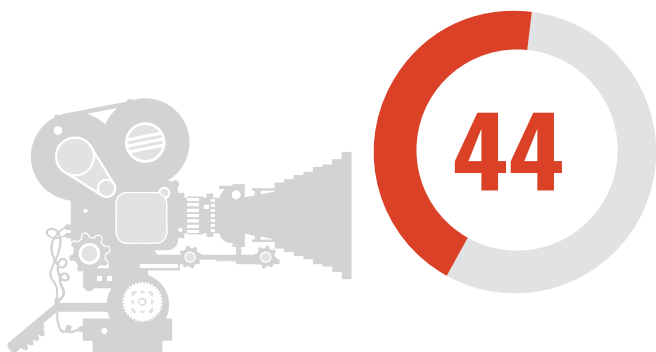


Total number of speaking characters

69,858

PROGRESS TOWARD PARITY FOR GIRLS & WOMEN AS LEADS

Of the 100 top films in 2022...



Depicted a **Girl or Woman** as a **Lead or Co Lead**

41 films in 2021 and 20 in 2007 depicted a girl or woman as a lead or co lead.

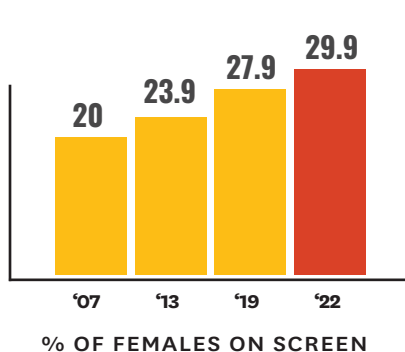
And of those 44 films...

19 had a female lead/co lead from an **underrepresented racial/ethnic group**

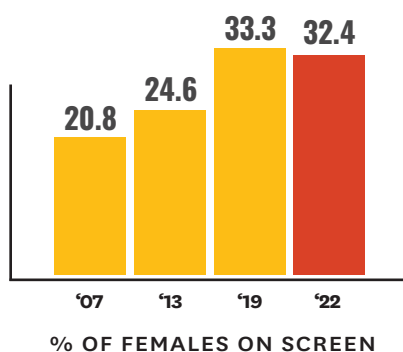
5 had a female lead/co lead **45 years of age or older**

Excludes films w/ensemble casts

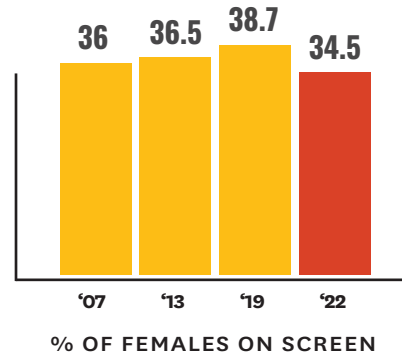
GENRE GAPS PERSIST FOR GIRLS AND WOMEN



ACTION



ANIMATION



COMEDY

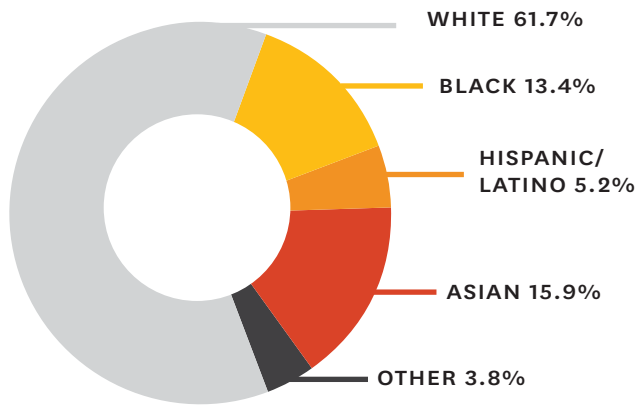
LIMITED PROGRESS FOR PROTAGONISTS OF COLOR IN FILM

Number of films with underrepresented leads or co leads by year

	'07	'08	'09	'10	'11	'12	'13	'14	'15	'16	'17	'18	'19	'20	'21	'22	OVERALL
ALL UR LEADS	13	13	17	12	9	13	17	17	16	14	22	27	32	29	37	31	20%
FEMALE UR LEADS	1	4	4	5	5	3	3	4	4	3	4	11	17	9	16	19	7%

INCLUSION OF RACIAL/ETHNIC GROUPS ON SCREEN IN 2022

Percentage of all speaking characters by racial/ethnic group



percentage of **under-represented** characters: **38.3%**

15 films had **NO Black or African American** speaking characters

46 films had **NO Hispanic/Latino** speaking characters

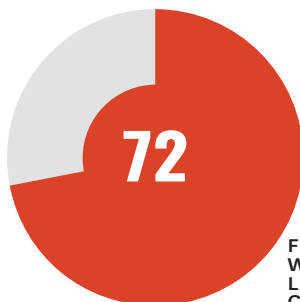
34 films had **NO Asian** speaking characters

**Since 2007, the percentage of White speaking characters decreased by 15.9 percentage points and the percentage of Asian characters increased*

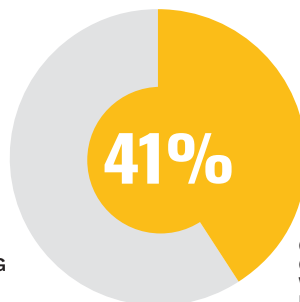
LGBTQ+ CHARACTERS ARE LEFT BEHIND IN FILM

Of 38,726 speaking characters across 900 films...

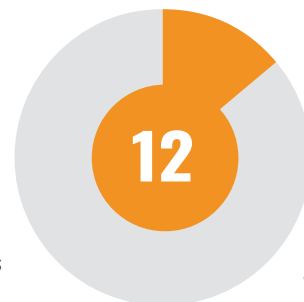
MEASURES	2014	2015	2016	2017	2018	2019	2020	2021	2022
GAY	12	19	36	16	33	45	12	24	43
LESBIAN	4	7	9	9	17	10	15	7	27
BISEXUAL	5	5	6	6	8	3	2	7	13
TRANSGENDER	0	1	0	0	0	3	0	3	5



FILMS IN 2022 WERE MISSING LGBTQ+ CHARACTERS

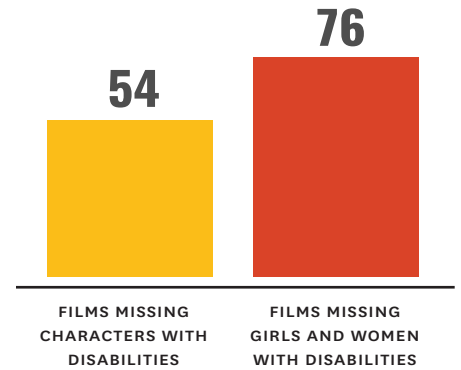
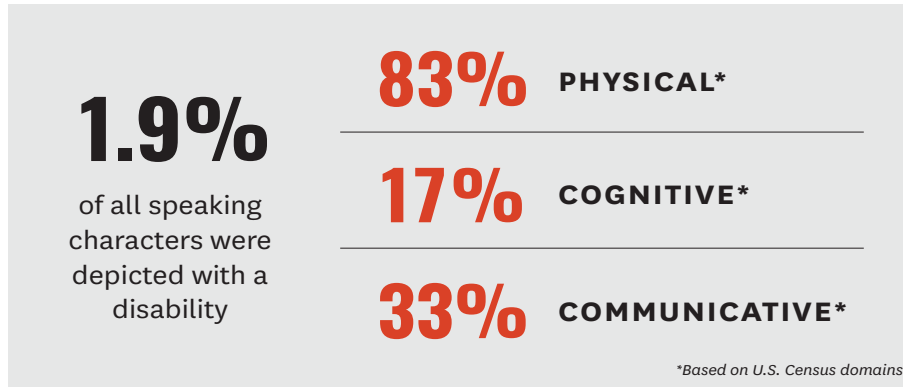


OF LGBTQ+ CHARACTERS WERE UNDER-REPRESENTED



LGBTQ+ CHARACTERS WERE PARENTS

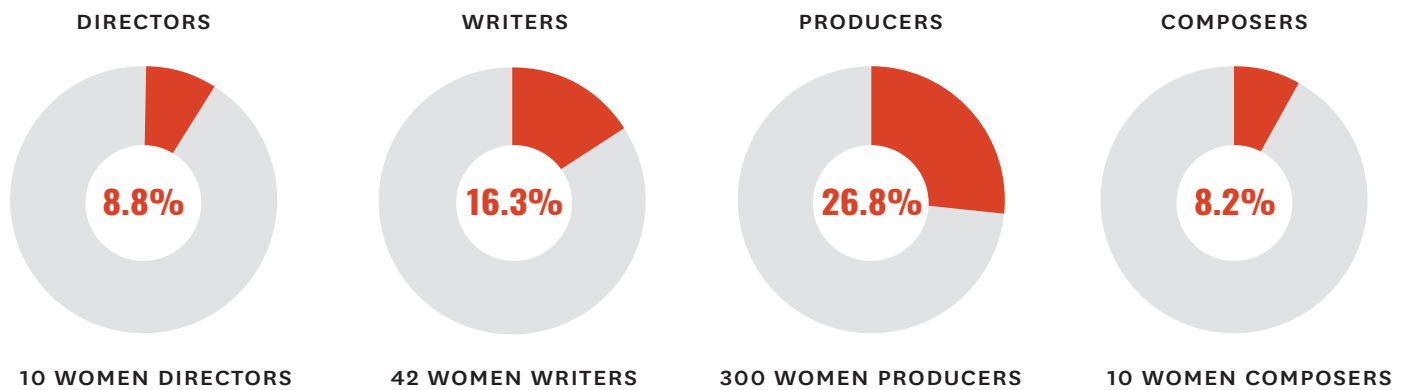
CHARACTERS WITH DISABILITY FACE A DEFICIT ON SCREEN IN FILM



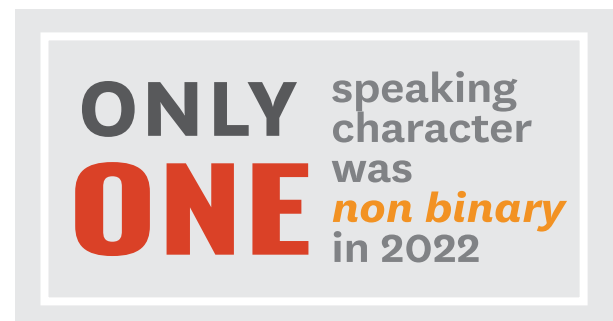
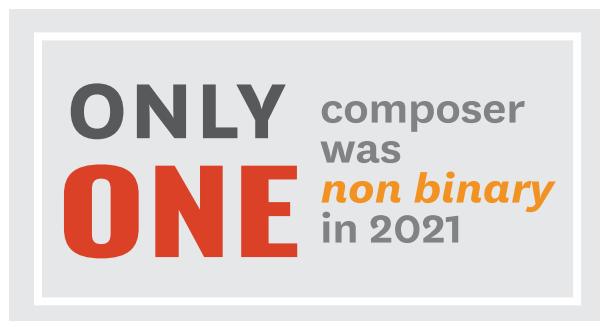
WOMEN BEHIND THE CAMERA IN 2022

Across 1,614 content creators....

● MEN ● WOMEN



GENDER FLUIDITY IS HARDLY REPRESENTED IN ENTERTAINMENT



WOMEN DIRECTORS ACROSS 1,600 TOP-GROSSING FILMS



THERE
WERE

88

INDIVIDUAL
WOMEN
BETWEEN
2007 & 2022

22

DIRECTORS
WERE
WOMEN
OF COLOR

108

FILMS WERE
DIRECTED
BY WOMEN
ACROSS
16 YEARS

Abby Kohn	Jennifer Flackett	Miranda July
Angelina Jolie	Jennifer Lee ⁺	Nancy Meyers ⁺
Anna Boden	Jennifer Yuh Nelson ⁺⁺	Natalie Erika James [*]
Anna Foerster	Jessica M. Thompson	Natalie Krinsky
Anne Fletcher ⁺	Jessie Nelson	Nia DaCosta [*]
Ashwiny Iyer Tiwari [*]	Jill Culton	Niki Caro
Autumn de Wilde	Jodie Foster	Nora Ephron
Ava DuVernay ⁺⁺	Julie Anne Robinson	Olivia Newman
Betty Thomas	Julie Taymor	Olivia Wilde ⁺
Brenda Chapman	Kasi Lemmons ⁺⁺	Patricia Riggen [*]
Castille Landon	Kat Coiro	Patty Jenkins ⁺
Cate Shortland	Kathryn Bigelow	Phyllida Lloyd ⁺
Catherine Hardwicke ⁺	Kay Cannon	Reed Morano
Cathy Yan [*]	Kimberly Peirce	Robin Wright
Charise Castro Smith [*]	Kirsten Sheridan	Rosalind Ross
Chinonye Chukwu [*]	Kitty Green	Roxann Dawson [*]
Chloé Zhao ⁺⁺	Lana Wachowski ⁺	Sam Taylor-Johnson [*]
Christy Summerhays	Laura Brousseau	Sanaa Hamri [*]
Diane English	Liesl Tommy [*]	Sarah Smith ⁺
Elaine Bogan	Lilly Wachowski ⁺	Shari Springer Berman
Elizabeth Allen Rosenbaum	Lisa Joy [*]	Sharon Maguire
Elizabeth Banks	Lorene Scafaria	Stacy Title
Emerald Fennell	Loveleen Tandan [*]	Stella Meghie ⁺⁺
Floria Sigismondi	Lucia Aniello	Susanna Fogel
Gail Mancuso	Maria Schrader	Susanna White
Gina Prince-Bythewood ⁺⁺	Marielle Heller	Thea Sharrock
Greta Gerwig ⁺	Meghna Gulzar [*]	Tina Gordon [*]
Halina Reijn	Melinda Matsoukas [*]	Trish Sie
Hallie Meyers-Shyer	Mimi Leder	Veronika Franz
Janicza Bravo [*]		

^{*}=underrepresented woman director
⁺=woman has worked more than once

DIRECTORS AND COMPOSERS: FEW WOMEN FILL THESE ROLES

	'07	'08	'09	'10	'11	'12	'13	'14	'15	'16	'17	'18	'19	'20	'21	'22	OVERALL
109 WOMEN OUT OF 1,784 DIRECTORS	3	9	4	3	4	5	2	2	8	5	8	5	12	15	14	10	6.1%
	112	112	111	109	108	121	107	107	107	120	109	112	112	111	113	113	
49 WOMEN OUT OF 1,830 COMPOSERS	0	2	2	2	1	2	2	1	1	2	1	3	6	9	5*	10	2.6%
	107	108	109	115	109	105	114	105	114	121	113	108	118	131	131	122	

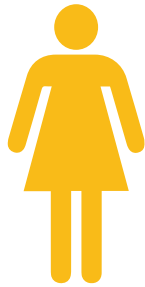
*includes one gender nonbinary composer

MOST CASTING DIRECTORS ARE WHITE WOMEN

Across 1,600 films the demographic breakdown of casting directors...



17.6%
ARE
WHITE
MEN



70.2%
ARE
WHITE
WOMEN



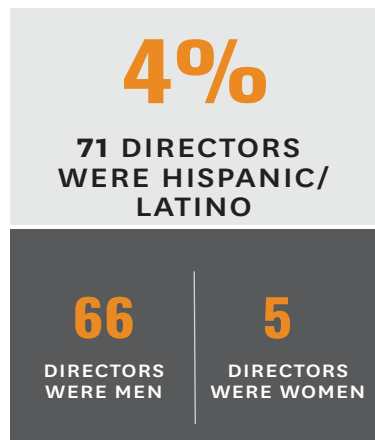
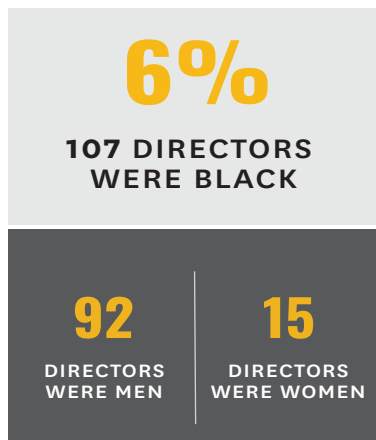
2.4%
ARE
UNDERREPRESENTED
MEN



9.8%
ARE
UNDERREPRESENTED
WOMEN

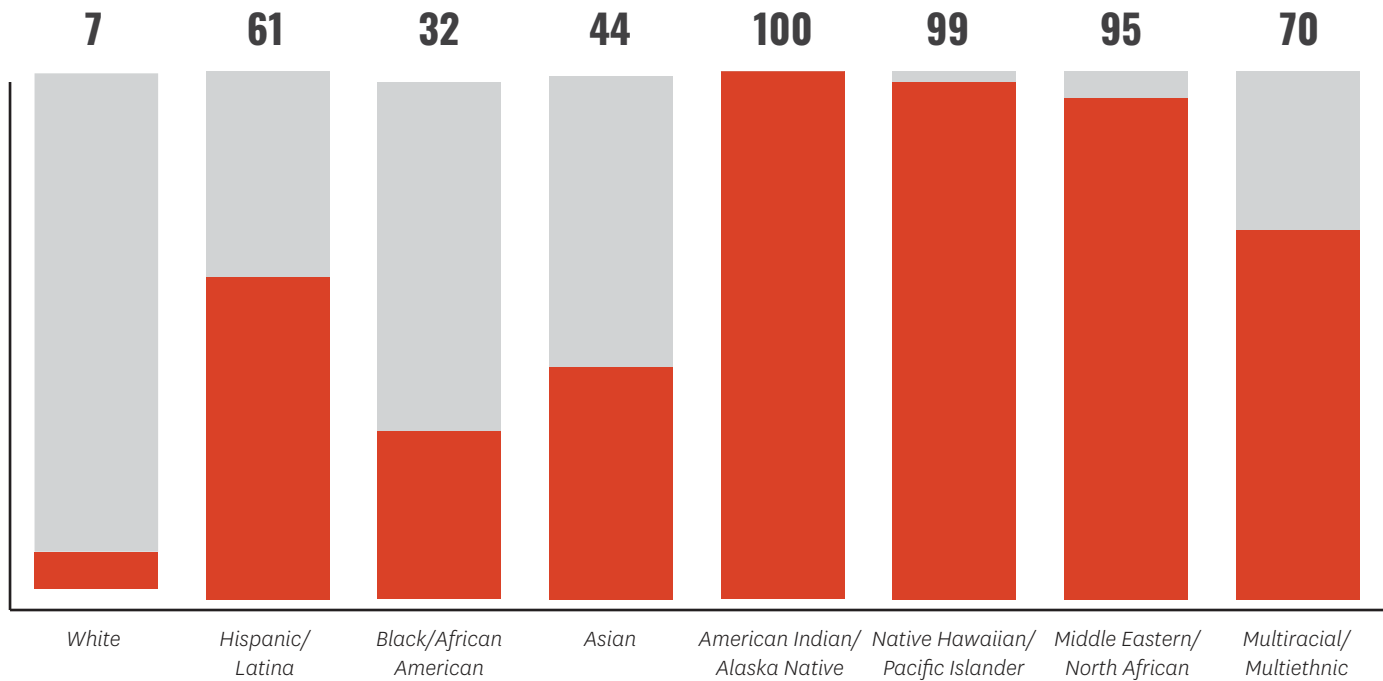
STORYTELLERS ARE STILL PRIMARILY WHITE AND MALE

Across 1,600 films and 1,784 directors...



ERASURE OF GIRLS AND WOMEN IN TOP-GROSSING FILMS

Of the 100 top films in 2022, the number missing girls and women on screen that were...



STRATEGIC SOLUTIONS TO FOSTER SYSTEMIC CHANGE

COLLECTIVE ACTION	SET TARGET INCLUSION GOALS	INCLUSION RIDER	SHAREHOLDER ACTIVISM
COMPANY-WIDE INCLUSION POLICIES	TRANSPARENT INTERVIEWING & HIRING PRACTICES	CREATE INCLUSIVE CONSIDERATION LISTS	SUPPORT NON-PROFIT ORGANIZATIONS TRAINING NEW FILMMAKERS

**Inequality in 1,600 Popular Films:
Examining Portrayals of Gender, Race/Ethnicity, LGBTQ+ & Disability from 2007 to 2022**

**Annenberg Inclusion Initiative
USC**

This analysis focuses on representation on screen and behind the camera across the 100 top-grossing fictional films from 2007 to 2022. A total of 1,600 movies have been examined for character portrayal of gender, race/ethnicity, LGBTQ+ and disability. Behind the scenes, we scrutinize hiring of above-the-line personnel (directors, writers, producers) as well as composers and casting directors by gender and race/ethnicity. This is the largest, most rigorous, and comprehensive analysis of identity in popular movies in the history of social science research.

Key Findings

Gender

On Screen. A total of 4,218 characters were evaluated for gender identity across the 100 top films of 2022. Only 34.6% of characters were female-identified. As such, the ratio of speaking characters was 1.89 males to every 1 female. The percentage of girls and women on screen has not changed since 2008 (32.8%). Clearly, the activism and industry advocacy has failed.

Across the 100 top movies of 2022, only 1 speaking character was coded as gender non-binary.

15% of the 100 top films of 2022 featured a gender-balanced cast, which did not differ from 2021 (15%) or 2007 (12%).

A full 44% of the 100 top-grossing movies of 2022 depicted a girl and/or woman in the leading/co leading role. The percentage is not meaningfully different from 2021 (41%), but 24 percentage points higher than 2007 (20%). It is important to note that 2022 reflects a 16-year high.

2022 represents a historic high where 19% of the films were carried by a girl/woman from an underrepresented racial/ethnic group. Further, this finding reflected a substantial increase from 2007 (1%). 10% of films featured a woman 45 years of age or older as a lead/co lead, which is significantly higher from 2007 (1%). Five percent of the 100 top films depicted a woman of color 45 years of age or older at the time of release. 0 were depicted in 2007.

From 2007 to 2022, only 23.9% of all speaking characters 40 years of age or older were women. This translates into a gender ratio of 3.2 older male characters to every 1 older female character. The percentage of women 40 years of age or older has not changed over time. In 2022, only 25.8% of older characters were women which is not meaningfully different than the percentage in 2007 (22.1%).

Behind the Camera. A total 1,492 content creators worked as measurable above-the-line personnel across the 100 top films of 2022. Less than one quarter (23.6%) of directors, writers, and producers were women.

Only 10 (8.8%) women worked as helmers across the 100 top-grossing movies of 2022. This calculates into a gender ratio of 10.3 male directors to every 1-woman director. The percentage of women directors has not meaningfully changed from 2021 (12.4%). While the percentage differs from 2007 (2.7%), the 2022 percentage is roughly equivalent to 2008 (8%).

The top performing women directors were Anne Fletcher and Lana Wachowski. Both of these women directed 4 films during the 16-year sample time frame. Fifteen women directed 2 movies from 2007 to 2022 (e.g., Ava DuVernay, Catherine Hardwicke, Chloe Zhao, Gina Prince-Bythewood, Greta Gerwig, Jennifer Lee, Jennifer Yuh Nelson, Julie Anne Robinson, Kasi Lemmons, Nancy Meyers, Olivia Wilde, Patty Jenkins, Phyllida Lloyd, Sarah Smith, Stella Meghie).

For comparison purposes, the total number of unique male directors across the sample time frame was 833, with the top performers Tyler Perry (18 movies), Steven Spielberg (14 movies) and Clint Eastwood (12 movies). The gender ratio of unique men directors to unique woman directors was 9.5 to 1.

Turning to screenwriters, a total of 4,627 individuals were credited across the 1,600 films. In 2022, a meager 16.3% were women and 83.7% were men. There was no change in the percentage of women screenwriters from 2021 (16.8%) to 2022 (16.3%). A meaningful change from 2007 (11.2%) did emerge, however.

In 2022, just over a quarter (26.8%) of all producers were women across the 100 top-grossing films. No difference emerged from 2022 to 2021 (24.8%), but the percentage of women producers was higher in 2022 than in 2007 (19.7%).

Pivoting to composers, we were interested in the gender distribution across this traditionally male-dominated position. 8.2% of composers were women across the 100 top-grossing films of 2022, which represents a 16-year high. Twice as many women composed films in 2022 (10) than in 2021 (4 women, 1 non binary) and more than 10 times as many as 2007.

A total of 491 different men but only 32 different women and non binary composers worked across the sample time frame. The top performing male composer was Hans Zimmer, who worked on 44 different films. The top performing woman composer was Deborah Lurie, who worked on only 5 movies. Most women composers only worked on one film. Thus, Hans Zimmer worked almost as many times (44) as all of the women composers hired from 2007 to 2022 (i.e., 49).

In 2022, a full 81.4% of all casting directors were women and just 18.6% were men. This is a gender ratio of 4.4 females to every 1 male. A higher percentage of women casters worked in 2022 than in 2021 (70.4%). However, 2022 was lower than 2007 (86.1%).

Having a woman director attached to a movie was associated with more female leads/co leads (85.7% vs. 31.7%) and girls/women as speaking characters (44.3% vs. 33.4%) than those films without a woman director attached. Women casting directors, however, did not evidence this effect.

Race/Ethnicity

On Screen. In 2022, a total of 3,802 characters were coded for an apparent race/ethnicity. A full 61.7% were White, 13.4% Black, 5.2% Hispanic/Latino, 15.8% Asian, 1.5% Middle Eastern/North African, <1% American Indian/Alaska Native, <1% Native Hawaiian/Pacific Islander, and 2.1% Multiracial/Multiethnic. Together, 38.3% of all speaking characters were from underrepresented racial/ethnic groups. This statistic is lower but not meaningfully different (2.8 percentage points) from U.S. Census (41.1%).

We examined whether the percentage of White, Black, Latino, Asian, and all other races/ethnicities changed over time. None of the 5 groups differed meaningfully from 2021 to 2022. A few notable deviations appeared from 2007. The percentage of Asian characters on screen has skyrocketed from 3.4% in 2007 to 15.9% in 2022. Matter of fact, 2020 (19.6%) was an all-time high for Asian representation across the 16-year time frame. The percentage of White characters also decreased over time (77.6% vs. 61.7%).

13.6% of the U.S. population identifies as Black. Only 16 out of the 100 top-grossing movies of 2022 featured Black characters at proportional representation (± 2 percentage points from 13.6%). 2022 was not different from 2021 (14 films) or 2018 (17 films). Fully 40 films in 2022 were *at or above* U.S. census which was lower than 2021 (45 films) and 2018 (48 films). Fifteen out of 100 movies erased Black characters completely on screen, which was lower than 2021 (20 movies) but not different from 2018 (13 movies).

Few films were at or above proportional representation of Hispanic/Latinos. In 2022, only 3 films featured Hispanic/Latinos as roughly 19.1% of the cast and 10 were above this benchmark. Erasure was even more vast, as 46 of the 100 top movies rendered Hispanic/Latinos invisible. This number is higher than 2021 but similar to 2018.

Focusing on proportional representation of Asian characters, only 17 films were at or near the U.S. Census benchmark. These number was not different from 2021 (21 movies) or 2018 (20 movies). More films exceeded proportional representation, however. Fully 31 movies portrayed a higher percentage of Asian speaking or named characters than the U.S. Census. However, this number did not deviate from 2021 (32) or 2018 (27). Thirty-four of the 100 top movies of 2022 completely erased Asians on screen, however. While this number did not differ from 2018, it was significantly higher than 2021.

Intersecting gender and race/ethnicity, we assessed how many movies erased or failed to depict at least one girl/women on screen (saying at least one word) from each of the racial/ethnic groups measured. In 2022, few movies rendered White girls and women absent. The amount of invisibility in 2022 (7 movies) has not changed from 2021 (6 movies) or 2018 (4 movies). 82 out of 1,600 films erased White females on screen.

Turning to Native Hawaiian/Pacific Islanders, 99 movies erased these characters which is comparable to 2021 and 2018. Out of 1,600 movies, female NH/PI characters were missing in 1,579. Similar findings were observed with American Indian/Alaska Native girls and women on screen, where 1,578 movies erased their presence altogether. MENA girls and women were absent from 95 of 100 films in 2022, which is not different from 2021 (94 films) or 2018 (93 films). Across 1,600 movies, MENA girls/women were invisible in 1,491 films.

Latina erasure is also pronounced. A full 61 movies out of the top 100 rendered Latinas invisible, which was equivalent to 2021 (57) but down from 2007 (70 movies). In sum, 1,086 out of 1,600 failed to depict

at least one Latina speaking character on screen. The erasure of Asian girls/women seems to be decreasing, from 54 movies in 2018 to 44 movies in 2022. 982 films erased Asians females across the 16-year time frame. Black girls/women were erased from 32 of the 100 top movies of 2022, which is nearly identical to 2018 (33 movies) but lower than 2021 (37 movies). 685 out of 1,600 movies did not show one Black girl or woman speaking on screen. Finally, multiracial/multiethnic girls and women were missing from 70 films in 2022. This is an increase from 2018 (51). Fully 1,200 out of 1,600 movies erased multiracial/multiethnic girls/women on screen.

Only 31% of films in 2022 had an underrepresented lead/co lead. This percentage is well below U.S. Census (41.1%). 2022 (31%) was significantly lower than 2021 (37%) but higher than 2007 (13%). Focusing on girls and women of color, 19% of movies in 2022 featured an underrepresented female in the leading/co leading role. The percentage was nearly identical to 2021 (16%) but substantially higher than 2007 (1%). Of the underrepresented female protagonists in 2022, 30% were Black, 20% Latina, 10% Asian, 40% Multiracial/Multiethnic.

Behind the Camera. A total of 113 directors were attached to the 100 top-grossing films of 2022. Of these, 22 (19.5%) were from underrepresented racial/ethnic groups and 91 were white (80.5%). Breaking down the 19.5%, 10.6% were Asian, 3.5% Black, 1.8% Hispanic/Latino, and 3.5% Multiracial/multiethnic. The percentage of underrepresented directors in 2022 (19.5%) was significantly lower than 2021 (31%) but higher than 2007 (12.5%).

Across all 16 years of the sample, 276 distinct directors of color were hired. 248 were men and 28 were women. The top performing male director was Tyler Perry, with 18 movies over the sample time frame. Jaume Collet-Serra directed 8 films while 5 men of color directed 7 movies: Antoine Fuqua, James Wan, Malcolm D. Lee, M. Night Shyamalan, and Tim Story. There were six women of color that tied for top performer each with 2 films helmed across the sample: Ava DuVernay, Chloe Zhao, Gina Prince-Bythewood, Jennifer Yuh Nelson, Kasi Lemmons, and Stella Meghie.

Only 92 or 5.2% of the directors were Black men across the 1,600 top films from 2007 to 2022. Even fewer Black women (<1%, n=15) were hired to helm a top-grossing picture. Only 11 specific Black women have sat in the director's chair between 2007 and 2023. Black directors, in comparison to films with non Black directors, depicted more Black leads/co leads (100% vs. 5.9%, respectively) and Black on screen speaking characters (51.1%, 10.3%, respectively).

Only 2 Hispanic/Latinos were hired to direct across the 100 top-grossing movies of 2022. 2022 was a significant downturn from 2021, when 12 different Latinos were attached to the 100 most popular films. Across 16 years, only 71 directing jobs have been filled with Hispanic/Latinos and 66 of those employment opportunities went to men.

2022 was a strong year for male Asian directors. Twelve different features were helmed by Asian men. Not one Asian woman director was hired, however. 2022 was slightly lower than 2021, where 16 different Asian directors were attached to the 100 most popular movies. Three of the directing gigs in 2021 were filled by two Asian women. When compared to films with non Asian directors, those with Asian helmers have significantly more Asian leads/co leads (73% vs 0) and Asian speaking characters (73.7% vs. 5.1%) on screen.

In 2022, 69.8% of casting directors were White women, 12.5% were White men, 11% underrepresented women, and 6.6% underrepresented men. Women casting directors of color were more likely than all other male or female casting directors to include non white girls/women on screen as speaking characters.

LGBTQ+

In 2022, 2.1% ($n=87$) of 4,169 speaking or named characters across 100 top-grossing films were LGBTQ+. Of the 86 LGBTQ+ characters, 27 were lesbian, 43 were gay, 13 were bisexual, and 5 were transgender.

More than 40% of the LGBTQ+ characters (41.4%) appeared in speaking roles that were inconsequential to the story.

In 2022, there was no change in the percentage of LGBTQ+ speaking characters compared to 2021 (<1%). The *number* of speaking characters who were LGBTQ+ more than doubled from 2021 to 2022.

In 2022, 72 of the 100 top films did not feature even one LGBTQ+ speaking or named character on screen. Eighty-four films were missing LGBTQ+ girls/women.

Only 3 films depicted LGBTQ+ characters within 2 percentage points of the proportion of LGBTQ people in the U.S. population (10%). A total of 16 movies achieved proportional representation of LGBTQ+ characters between 2014 and 2022.

In 2022, 57.5% of LGBTQ+ speaking characters were male-identified and 42.5% were female-identified. More than half (58.8%) of LGBTQ+ characters were White, while 22.4% were Black, 5.9% were Hispanic/Latino, 7.1% were Asian, and 5.9% were Multiracial/Multiethnic.

Of the LGBTQ+ characters, 43.7% were young adults (21-39 years old), while 42.5% were middle-aged or older (age 40-64). There were 9 (10.3%) teen LGBTQ+ characters in 2022 and 3 (3.4%) elderly characters. A quarter (26.7%) of the LGBTQ+ characters were shown as parents or caregivers.

While the highest number of transgender characters across the 900-film sample were observed in 2022, this was a total of 5 characters. Four of the 5 transgender characters in 2022 appeared in one movie (*Bros*). Only 1 transgender character was inconsequential to the plot, which is an improvement from previous years when all transgender characters were incidental.

A total of 9 films in 2022 featured an LGBTQ+ lead/co lead. This was the largest number of LGBTQ+ leads/co leads across the sample of films, and an increase from 2021 (1 LGBTQ+ led/co led film). None of the leads were transgender.

Characters with Disabilities

In 2022, 1.9% ($n=81$) of all speaking characters were shown with a disability. There was no meaningful difference in the percentage of speaking characters with a disability across the 800 films and 8-year timespan of the study.

Most characters (82.7%, $n=67$) had a physical disability (e.g., difficulty with mobility, missing limb), while 33.3% ($n=27$) had a communicative disability (e.g., difficulty with speech, hearing, vision), and 17.3% ($n=14$) had a cognitive disability (e.g., depression, dementia, PTSD). Because characters could be shown with more than one disability, these percentages do not total to 100%.

54 of 2022's top 100 movies failed to feature at least one speaking character with a disability, which is higher than both 2021 (48 films) and 2015 (45 films). 76 movies were missing female-identified characters with a disability, on par with 2021 (76 films) and slightly below 2015 (84 films).

Only 1 of the 800 movies included in the over-time analysis reached proportional representation of characters with disabilities in comparison to the U.S. population (27%). That film was included in the 2021 sample.

Of the characters with disabilities in the top films of 2022, most were male-identified (69.1%) while 30.9% were female-identified. Three-quarters (76%) of characters with disabilities were White and 24% were from underrepresented racial/ethnic groups.

Looking to age, fewer than 10% of characters with disabilities were children (6.5%) or teens (2.6%), while 31.2% were young adults (age 21 to 39) and 59.7% were middle aged (age 40-64) or elderly (age 65+).

Only 1 character with a disability in 2022 was LGBTQ+. Out of all 800 films examined, just 10 characters shown with a disability were LGBTQ+. None of those characters was transgender.

A mere 15 characters with a disability (34.9% of all characters with a disability) in 2022 were shown as parents.

In 2022, 14 films featured a lead/co lead character with a disability. Of the 14 films with a lead/co lead featuring a disability, 11 featured a male character and 3 a female character. The majority of films with leads/co leads with a disability ($n=11$) featured a White lead/co lead, while the remaining movies featured 1 Asian lead/co lead, 1 Hispanic/Latino lead/co lead, and 1 Multiracial/Multiethnic lead/co lead. Only 1 lead/co lead with a disability was part of the LGBTQ+ community.

**Inequality in 1,600 Popular Films:
Examining Portrayals of Gender, Race/Ethnicity, LGBTQ+ & Disability from 2007 to 2022**

**Annenberg Inclusion Initiative
USC**

This analysis focuses on representation on screen and behind the camera across the 100 top-grossing fictional films from 2007 to 2022. A total of 1,600 movies have been examined for character portrayal of gender, race/ethnicity, LGBTQ+ and disability. Behind the scenes, we scrutinize hiring of above-the-line personnel (directors, writers, producers) as well as composers and casting directors by gender and race/ethnicity. *To date and historically, this is the largest, most rigorous, and comprehensive analysis of identity in popular movies.*¹

The results are presented below by identity group. We only note differences of 5 percentage points or more between comparison groups to prevent discussing trivial deviations. The findings for 2022 are presented first followed by a comparison to 2021 and 2007.

Gender

On Screen Prevalence. As shown in Table 1, a total of 4,218 characters were evaluated for gender identity across the 100 top films of 2022. Only 34.6% of characters were female-identified (see Table 1). As such, the ratio of speaking characters was 1.89 males to every 1 female. Not only is this below U.S. census where girls and women comprise 50.4% of the population,² but this statistic is not different from 2021 (33.1%). While meaningfully different from 2007 (29.9%), the percentage of girls and women on screen in 2022 is very close to 2008 and 2009. So much for progress! It is also important to note that out of more than 4,200 speaking characters across the 100 top movies of 2022, only 1 was coded as gender non-binary.

We were also interested in the total number of films that featured a gender-balanced cast. A cast is gender-balanced when girls and/or women are featured in 45%-54.9% of all speaking roles. As shown in Table 1, 15% of the 100 top films of 2022 featured a gender-balanced cast. This percentage was not different from 2021 (15%) or 2007 (12%). Interestingly, only 7 of the 100 top movies of 2022 depicted casts that tilted female (i.e., 55% or more of the speaking characters were girls and women).

**Table 1
Prevalence of Female Characters On Screen by Year: 2007 to 2022**

Year	% of Female Characters	% of Balanced Casts	Ratio of Males to Females	Total # of Characters	Total # of Films
2007	29.9%	12%	2.35 to 1	4,379	100
2008	32.8%	15%	2.05 to 1	4,370	100
2009	32.8%	17%	2.05 to 1	4,342	100
2010	30.3%	4%	2.30 to 1	4,154	100
2011	31.2%	12%	2.21 to 1	4,508	100
2012	28.4%	6%	2.52 to 1	4,476	100

2013	29.2%	16%	2.43 to 1	4,506	100
2014	28.1%	9%	2.55 to 1	4,610	100
2015	31.4%	18%	2.19 to 1	4,370	100
2016	31.5%	11%	2.18 to 1	4,590	100
2017	31.8%	19%	2.15 to 1	4,454	100
2018	33.1%	9%	2.02 to 1	4,422	100
2019	34%	14%	1.94 to 1	4,450	100
2020	33.5%	15%	1.98 to 1	3,706	100
2021	33.1%	15%	2.02 to 1	4,301	100
2022	34.6%	15%	1.89 to 1	4,218	100
Total	31.6%	12.9%	2.17 to 1	69,858	1,600

Note: The 100 top movies in North America based on Box Office Mojo were included in the sample each year. In 2007 and 2009, two films were released as double features and thus the sample sizes for those years was 101. However, we grouped the double features as one film for analysis purposes.

Genre often has been correlated with the prevalence of girls and women on screen. Therefore, we examined the percentage of girls and women across three historically male genres: action/adventure, animation, and comedy.³ As shown in Table 2, the percentage of female speaking characters in action/adventure was at an all-time high in 2022 (29.9%). However, this percentage is not meaningfully different from 2021 (28.8%) but is up from 2007 (20%). For animation, a similar trend emerged. Animated movies released in 2022 (32.4%) did not differ from those released in 2021 (36.1%) and both were substantially higher than those released in 2007 (20.8%). No differences appeared in the percentage of girls and women on screen in comedy, with 2022 clocking in at 34.5% girls and women.

Table 2
Prevalence of Female Characters On Screen by Genre and Year: 2007-2022

Year	% of Female Characters in Action/Adventure	% of Female Characters in Animation	% of Female Characters in Comedy
2007	20%	20.8%	36%
2008	21.6%	26.9%	40.2%
2009	21.6%	30.8%	39%
2010	23.5%	30.7%	35.6%
2011	25%	23.7%	37.2%
2012	22.7%	27.5%	36%
2013	23.9%	24.6%	36.5%
2014	21.8%	23.3%	32%
2015	25.6%	26.8%	36.5%
2016	23.3%	30.8%	40.8%
2017	24.4%	30.8%	42.9%
2018	29%	31.3%	37.5%
2019	27.9%	33.3%	38.7%
2020	25%	35.2%	39.2%
2021	28.8%	36.1%	34.4%

2022	29.9%	32.4%	34.5%
------	-------	-------	-------

Note: For males, subtract the percentage of females within a cell from 100%.

Next, we examined the identity attributes of protagonists driving top-grossing fare. Across the most popular films of 2022, 72 movies had a single lead, 23 had a co lead, and 5 had ensemble leads. Each year, we collapse the first two categories and examine the percentage of movies with girls and women in the leading and/or co leading role.⁴ Table 3 illuminates the percentage of female-identified leads/co leads from four groups across all 1,600 movies.

Table 3
Prevalence of Female-Identified Leads & Co Leads by Year: 2007-2022

Year	% of films w/ Girls & Women	% of films w/ Women of Color	% of films w/ Women 45 Yrs & Older	% of films w/WOC 45 Yrs & Older
2007	20%	1%	1%	0
2008	27%	4%	4%	1%
2009	27%	4%	4%	0
2010	30%	5%	3%	0
2011	23%	5%	4%	2%
2012	24%	3%	3%	0
2013	28%	3%	7%	2%
2014	21%	4%	0	0
2015	32%	4%	5%	1%
2016	33%	3%	8%	1%
2017	32%	4%	5%	1%
2018	39%	11%	11%	4%
2019	43%	17%	3%	1%
2020	36%	9%	4%	0
2021	41%	16%	7%	1%
2022	44%	19%	10%	5%
Total	31.2%	7%	4.9%	1.2%

Note: For this table, the total number of films with a girl or woman in the lead/co lead are presented. For this measure, we focus on the identity of the character depicted on screen. For race/ethnicity and age, the actor's identity was used to make the judgment. Movies with ensembles were not included in this analysis.

A full 44% of the 100 top-grossing movies of 2022 depicted a girl and/or woman in the leading/co leading role. The percentage is not meaningfully different from 2021 (41%), but 24 percentage points higher than 2007 (20%). It is important to note that 2022 reflects a 16-year high.

Focusing on women of color, 2022 represents a historic high where 19% of the films were carried by a female from an underrepresented racial/ethnic group. Further, this finding reflected a substantial increase from 2007 (1%). No differences emerged from 2021 to 2022 for films with women 45 years of age or older leading or co leading the action, independent of whether they were White or from an

underrepresented racial/ethnic group. It is important to note that leads/co leads within these two identity groups increased notably from 2007.

It is clear from our findings that there is still a long way to go on gender equality. While the percentage of films with girls and women at the center has been over 40% recently, the proportion of female speaking characters continues to resist change.

On Screen Portrayals. Each year, we examine two stereotypes specifically related to gender. The first is age, as females are more likely to have a sell buy date (i.e., 40 years of age) than their male colleagues.⁵ As shown in Table 4, girls (45%) and female teens (46.9%) were close to proportional representation (50.4%) across the 100 most popular movies of 2022. A full 39.7% of 21- to 39-year-old speaking characters were women and only 25.6% of those 40 years of age or older.

Table 4
Character Age by Gender in Top-Grossing Films: 2022

Gender	Children 0-12 yrs	Teens 13-20 yrs	Young Adult 21-39 yrs	Adults 40 yrs or Older
Males	55%	53%	60.3%	74.2%
Females	45%	47%	39.7%	25.8%
Ratio	1.22 to 1	1.12 to 1	1.52 to 1	2.9 to 1

Note: Each column percentage totals to 100%.

Given the gender disparity for older characters, we looked specifically at this age group across all 16 years of the sample. Only 23.9% of all speaking characters 40 years of age or older were women. This translates into a gender ratio of 3.2 older male characters to every 1 older female character. As shown in Table 5, the percentage of women 40 years of age or older has not changed over time. In 2022, only 25.8% of older characters were women which is not meaningfully different than the percentage in 2007 (22.1%).

Table 5
Gender of Characters 40 years of Age and Older: 2007 to 2022

Year	Males	Females
2007	77.9%	22.1%
2008	72.8%	27.2%
2009	75.6%	24.4%
2010	78.2%	21.8%
2011	78.2%	21.8%
2012	79.2%	20.8%
2013	78.4%	21.6%
2014	79.4%	20.6%
2015	75.4%	24.6%
2016	74.3%	25.7%

2017	75.4%	24.6%
2018	75%	25%
2019	74.6%	25.4%
2020	72.9%	29.1%
2021	74.3%	25.7%
2022	74.2%	25.8%
Total	76.1%	23.9%

Note: Only characters 40 years of age or older were included in this analysis.

The second measure often associated with gender is parental status. Studies have routinely shown, including ours, that women are more likely to be depicted in caregiving and domestic roles than men.⁶ In 2022, for both women (43.8%) and men (32.6%), the percentage depicted as parents was non meaningfully different from 2021 (44.2%=women; 36.4%=men). However, for both groups the percentage shown as parents in 2022 was significantly lower than 2007 (50%=women; 51.5%=men).

Table 6
Gender and Parental Status: 2007 to 2022

Year	Males	Females
2007	51.5%	50%
2008	40.9%	52.9%
2009	43%	50.5%
2010	42.6%	49.4%
2011	37.6%	42.4%
2012	45.2%	60.4%
2013	45.8%	51.9%
2014	42%	53.5%
2015	40.2%	44.4%
2016	33.9%	47.5%
2017	33%	40.3%
2018	34.6%	41.3%
2019	31.3%	41.6%
2020	35.7%	44.6%
2021	36.4%	44.1%
2022	32.6%	43.8%
Total	38.4%	46.7%

Note: Only characters with enough information to judge parental status were evaluated on this measure. Within each cell, the percentage of females or males depicted as parents are reported. Thus, the two cells within year do not add to 100%. For the percent of females who are not shown as parents, subtract a within year cell from 100%.

Together, we can sum up the results in two ways. One, males – unlike their female counterparts -- can play any age on screen. Put differently, very few roles exist for women once they hit 40 years of age. Two, domestic roles (i.e., parenting) are typically characteristic of women in storytelling. Neither of

these findings are new or surprising. We have literally written the same results across the more than 12 times we have released this report publicly. Now, we turn to who might be responsible for these trends by examining who works behind the camera.

Behind the Camera. A total 1,492 content creators worked as measurable above-the-line personnel across the 100 top films of 2022.⁷ As illustrated in Table 7, less than one quarter (23.6%) of these positions were filled with women! Below, we focus on the prevalence of women working in specific above- and below-the- line positions.

Table 7
Content Creators by Gender: 2022

Position	Males	Females	Gender Ratio
Directors	91.2% (n=103)	8.8% (n=10)	10.1 to 1
Writers	83.7% (n=216)	16.3% (n=42)	5.1 to 1
Producers	73.2% (n=821)	26.8% (n=300)	2.7 to 1
Total	76.4% (n=1,140)	23.6% (n=352)	3.2 to 1

In terms of **directors**, only 10 (8.8%) women worked as helmers across the 100 top-grossing movies of 2022. This calculates into a gender ratio of 10.3 male directors to every 1 woman director. As depicted in Table 8, the percentage of women directors has not meaningfully changed from 2021 (12.4%). While the percentage differs from 2007 (2.7%), the 2022 percentage is roughly equivalent to 2008 (8%).

Table 8
Women Directors: 2007 to 2022

Year	% of Women Directors	# of Women Directors	Total # of Directors
2007	2.7%	3	112
2008	8%	9	112
2009	3.6%	4	111
2010	2.8%	3	109
2011	3.7%	4	108
2012	4.1%	5	121
2013	1.9%	2	107
2014	1.9%	2	107
2015	7.5%	8	107
2016	4.2%	5	120
2017	7.3%	8	109
2018	4.5%	5	112
2019	10.7%	12	112
2020	13.5%	15	111
2021	12.4%	14	113
2022	8.8%	10	113
Total	6.1%	109	1,784

In total, 109 jobs have been allocated to women directors across the 1,600 top movies. Some of these women worked more than once, however. As such, the total number of individual or distinct women directors reduces from 109 to 88.

The top performing women directors were Anne Fletcher and Lana Wachowski. Both of these women directed 4 films during the 16-year sample time frame. Fifteen women directed 2 movies from 2007 to 2022 (e.g., Ava DuVernay, Catherine Hardwicke, Chloe Zhao, Gina Prince-Bythewood, Greta Gerwig, Jennifer Lee, Jennifer Yuh Nelson, Julie Anne Robinson, Kasi Lemmons, Nancy Meyers, Olivia Wilde, Patty Jenkins, Phyllida Lloyd, Sarah Smith, Stella Meghie).

For comparison purposes, the total number of unique male directors across the sample time frame was 833, with the top performers Tyler Perry (18 movies), Steven Spielberg (14 movies) and Clint Eastwood (12 movies). The gender ratio of unique male directors to unique female directors is 9.5 to 1.

Table 9
Women Directors Working Across the 1,600 Top Grossing U.S. Films: 2007-2022

Abby Kohn	Jennifer Flackett	Nancy Meyers* (2)
Angelina Jolie	Jennifer Lee* (2)	Natalie Erika James
Anna Boden	Jennifer Yuh Nelson* (2)	Natalie Krinsky
Anna Foerster	Jessica M. Thompson	Nia DaCosta
Anne Fletcher* (4)	Jessie Nelson	Niki Caro
Ashwiny Iyer Tiwari	Jill Culton	Nora Ephron
Autumn de Wilde	Jodie Foster	Olivia Newman
Ava DuVernay* (2)	Julie Anne Robinson* (2)	Olivia Wilde* (2)
Betty Thomas	Julie Taymor	Patricia Riggen
Brenda Chapman	Kasi Lemmons* (2)	Patty Jenkins* (2)
Castille Landon	Kat Coiro	Phyllida Lloyd* (2)
Cate Shortland	Kathryn Bigelow	Reed Morano
Catherine Hardwicke* (2)	Kay Cannon	Robin Wright
Cathy Yan	Kimberly Peirce	Rosalind Ross
Charise Castro Smith	Kirsten Sheridan	Roxann Dawson
Chinonye Chukwu	Kitty Green	Sam Taylor-Johnson
Chloe Zhao* (2)	Lana Wachowski* (4)	Sanaa Hamri
Christie Summerhays	Laura Brousseau	Sarah Smith* (2)
Diane English	Liesl Tommy	Shari Springer Berman
Elaine Bogan	Lilly Wachowski	Sharon Maguire
Elizabeth Allen Rosenbaum	Lisa Joy	Stacy Title
Elizabeth Banks	Lorene Scafaria	Stella Meghie* (2)
Emerald Fennell	Loveleen Tandan	Susanna Fogel
Floria Sigismondi	Lucia Aniello	Susanna White
Gail Mancuso	Maria Schrader	Thea Sharrock
Gina Prince-Bythewood* (2)	Marielle Heller	Tina Gordon
Greta Gerwig* (2)	Meghna Gulzar	Trish Sie
Halina Reijn	Melina Matsoukas	Veronika Franz
Hallie Meyers-Shyer	Mimi Leder	
Janicza Bravo	Miranda July	

Note: Each name with an asterisk indicates that the director worked more than once during the sample time frame. The total number of top grossing movies directed per person across the 16 year sample are in parentheses.

Turning to screenwriters, a total of 4,627 individuals were credited across the 1,600 films (see Table 10). In 2022, a meager 16.3% were women and 83.7% were men. There was no change in the percentage of women screenwriters from 2021 (16.8%) to 2022 (16.3%). A meaningful change from 2007 (11.2%) did emerge, however. Overall, very little growth in the percentage of women writers has been documented across the 16-year sample.

Table 10
Women Writers: 2007 to 2022

Year	% of Women Writers	# of Women Writers	Total # of Writers
2007	11.2%	35	314
2008	14.1%	36	255
2009	13.3%	38	285
2010	11.3%	30	265
2011	12.2%	38	312
2012	11.7%	33	283
2013	7.4%	21	283
2014	11.4%	34	298
2015	11.4%	30	264
2016	12.4%	37	299
2017	10.4%	35	338
2018	14.8%	47	317
2019	19.1%	56	293
2020	12%	31	259
2021	16.8%	51	304
2022	16.3%	42	258
Total	12.8%	594	4,627

The next above-the-line role examined was producing. In 2022, just over a quarter (26.8%) of all producers were women across the 100 top-grossing films. No difference emerged from 2022 to 2021 (24.8%), but the percentage of female producers was higher in 2022 than in 2007 (19.7%).

Table 11
Women Producers: 2007 to 2022

Year	% of Women Producers	# of Women Producers	Total # of Producers
2007	19.7%	164	832
2008	19.6%	171	873
2009	22.3%	195	876
2010	18.6%	165	885
2011	21.7%	192	886

2012	20.3%	181	890
2013	20%	208	1,042
2014	20.2%	207	1,022
2015	21.9%	224	1,021
2016	20.9%	218	1,045
2017	21.9%	252	1,153
2018	21.2%	239	1,127
2019	24.4%	275	1,125
2020	24.2%	289	1,192
2021	24.8%	299	1,204
2022	26.8%	300	1,121
Total	22%	3,579	16,294

Pivoting to composers, we were interested in the gender distribution across this traditionally male-dominated position. As depicted in Table 12, 8.2% of composers were women across the 100 top-grossing films of 2022, which represents a 16-year high. Twice as many women composed films in 2022 than in 2021 and more than 10 times as many as 2007.

Table 12
Women Composers: 2007 to 2022

Year	% of Women Composers	# of Women Composers	Total # of Composers
2007	0	0	107
2008	1.8%	2	108
2009	1.8%	2	109
2010	1.7%	2	115
2011	0.9%	1	109
2012	1.9%	2	105
2013	1.8%	2	114
2014	1%	1	105
2015	0.9%	1	114
2016	1.6%	2	121
2017	0.9%	1	113
2018	2.8%	3	108
2019	5.1%	6	118
2020	6.9%	9	131
2021	3%	5*	131
2022	8.2%	10	122
Total	2.6%	49	1,830

Note: In 2021, the asterisk indicates that one of the composers was identified as gender non-binary and four identified as women.

We list all of the women and non-binary composers in Table 13. When we look to gender, a total of 491 different men but only 32 different women and non binary composers worked across the sample time

frame. The top performing male composer was Hans Zimmer, who worked on 44 different films. The top performing woman composer was Deborah Lurie, who worked on only 5 movies. Most women composers only worked on one film. Thus, Hans Zimmer worked almost as many times (44) than all of the women composers hired from 2007 to 2022 (i.e., 49).

Table 13
Women & Non Binary Composers Working Across the 1,600 Top Grossing U.S. Films: 2007-2022

Alisa Okehazama	Karen O
Amie Doherty	Laurence Lafond-Beaulne
Anna Drubich* (2)	Lesley Barber
Anne Dudley* (2)	Lisbeth Scott
Camile Poliquin	Mica Levi
Chanda Dancy* (2)	Miho Hazama
Chelsea Wolfe	Morgan Kibby
Claudia Sarne	Nami Melumad
Dara Taylor* (2)	Natalie Holt
Deborah Lurie* (5)	Parampara Thakur
Eiko Ishibashi	Pinar Toprak* (2)
Genevieve Vincent	Rachel Portman* (4)
Germaine Franco* (4)	Sarah Schachner
Hildur Guðnadóttir* (3)	Tamar-kali
Isobel Waller-Bridge	Tierney Sutton
Jeanine Tesori	Yuki Kajiura

Lastly, we evaluated the gender of casting directors.⁸ This role, unlike many other behind-the-camera positions, is stereotypically female. In 2022, a full 81.4% of all casters were women and just 18.6% were men. This is a gender ratio of 4.4 females to every 1 male. A higher percentage of women casters worked in 2022 than in 2021 (70.4%). However, 2022 was lower than 2007 (86.1%).

Table 14
Women Casting Directors: 2007 to 2022

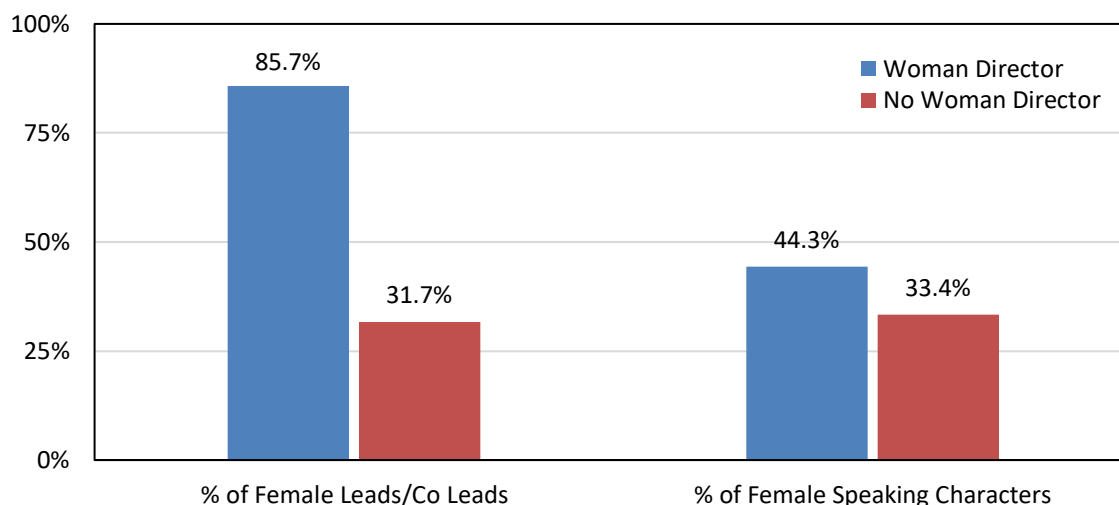
Year	% of Women Casting Directors	# of Women Casting Directors	Total # of Casting Directors
2007	86.1%	136	158
2008	80.2%	134	167
2009	85.2%	138	162
2010	81.6%	129	158
2011	79.1%	125	158
2012	76.1%	124	163
2013	79.1%	136	172
2014	80%	128	160
2015	80.5%	128	159
2016	83.6%	117	140
2017	80.4%	119	148

2018	85.1%	120	141
2019	70.4%	95	135
2020	80%	128	160
2021	70.4%	107	152
2022	81.4%	114	140
Total	80%	1,978	2,473

Given the aforementioned findings, it is important to understand how gender behind the camera is related to gender on screen. To this end, we were interested in whether having a female director attached to a movie (no, yes) was associated with having a female lead/co lead (no, yes) as well as the percentage of female speaking characters across the 2022 sample. Figure 1 illuminates the significant associations. Films with women directors attached were far more likely to have girls and women at the center of the story and female speaking characters on screen than films only men directors.

There are at least two explanations for these results. One, women write and direct what they know. As such, they are more likely to tell stories about female protagonists in worlds inhabited by female characters. Two, and more alarming, studio executives and financiers are more likely to green light stories with women directors when their identity matches the lead and narrative of the story. This latter explanation is problematic, as it suggests identity is dictating hiring practices and not talent.

Figure 1
Percentage of Female Leads/Co Leads and Speaking Characters On Screen by Director Gender: 2022



Given the role of casters, we were also interested in how this behind the camera position correlated with the gender of on screen speaking characters. We did not focus on leads, as that hiring decision rests on directors far more than casters. Of those movies in 2022 with a caster attached, no difference emerged between the percentage of girls and women on screen with women (35.4%) vs. men (33.8%) as casting directors. Why? Our assumption is that casting directors fill jobs in stereotypical ways and rely on a very small pool of talent rather than thinking about how to portray the world we actually live in. Yes, casting directors are part of the problem and they are largely women.

Taken as a whole, 2022 was not a great year for representation behind the camera. Clearly, this is an industry that cannot create change without the help and consultation of experts. Even with implicit bias training, ERGs, and groups devoted to activism, the same glass ceiling prevents women from being hired in some of the more important roles behind the camera. Next, we will turn to another identity factor that is often marginalized in entertainment: race/ethnicity.

Race/Ethnicity

Each year, we measure the apparent race/ethnicity of speaking or named characters. This section highlights not only on screen but also behind the camera employment patterns. Particular attention is given to the three largest racial/ethnic groups (i.e., Black, Hispanic/Latino, Asian) and women of color from all underrepresented backgrounds.

On Screen Prevalence. In 2022, a total of 3,802 characters were coded for an apparent race/ethnicity. A full 61.7% were White, 13.4% Black, 5.2% Hispanic/Latino, 15.8% Asian, 1.5% Middle Eastern/North African, <1% American Indian/Alaska Native, <1% Native Hawaiian/Pacific Islander, and 2.1% Multiracial/Multiethnic. Together, 38.3% of all speaking characters were from underrepresented racial/ethnic groups. This statistic is lower but not meaningfully different (2.8 percentage points) from U.S. Census (41.1%).⁹

Table 15
Prevalence of Character Race/Ethnicity On Screen by Year: 2007-2022

Year	White	Black	Latino	Asian	Other
2007	77.6%	13.0%	3.3%	3.4%	2.6%
2008	71.2%	13.2%	4.9%	7.1%	3.5%
2009	76.2%	14.7%	2.8%	4.7%	1.6%
2010	77.6%	10.3%	3.9%	5%	3.2%
2011	77.1%	9.1%	5.9%	4.1%	3.8%
2012	76.3%	10.8%	4.2%	5%	3.7%
2013	74.1%	14.1%	4.9%	4.4%	2.5%
2014	73.1%	12.5%	4.9%	5.3%	4.2%
2015	73.7%	12.2%	5.3%	4%	4.9%
2016	70.8%	13.5%	3.1%	5.6%	7%
2017	70.7%	12.1%	6.2%	4.8%	6.3%
2018	63.7%	16.9%	5.3%	8.2%	6%
2019	65.6%	15.7%	4.9%	7.2%	6.6%
2020	58.3%	9.5%	5.6%	19.6%	7%
2021	58.8%	14.3%	8.6%	13%	5.3%
2022	61.7%	13.4%	5.2%	15.9%	3.8%
Total	70.6%	12.9%	4.9%	7.2%	4.4%

Note: "Other" was comprised of characters coded Middle Eastern/North African, American Indian/Alaskan Native, Native Hawaiian/Pacific Islander, and Multiracial/Multiethnic.

To gauge change over time, we examined the percentage of White, Black, Latino, Asian, and all other races/ethnicities from 2007 to 2022.¹⁰ As depicted in Table 15, none of the 5 groups differed meaningfully from 2021 to 2022. A few notable deviations appeared from 2007. The percentage of Asian characters on screen has skyrocketed from 3.4% in 2007 to 15.9% in 2022. Matter of fact, 2020 (19.6%) was an all-time high for Asian representation across the 16-year time frame. The percentage of White characters also decreased over time (77.6% vs. 61.7%).

Pivoting to genre, we were interested in whether characters of color were shown across a variety of genres. To examine this, we first collapsed all characters with a discernable race/ethnicity into one of two categories: White vs. not White. After this, we assessed the percentage of underrepresented characters in animation, action/adventure and comedy.

Table 16 depicts the results. In 2022, the percentage of underrepresented characters in action/adventure (46.8%) and animation (59.2%) were far north of proportional representation. While these percentages did not meaningfully differ from 2021, they were substantially larger than 2007 across both genres (action/adventure=21.6%, animation=8.1%). In terms of comedy, 2022 (36.7%) was significantly higher than 2021 (22.5%) and 2007 (23.1%). However, the 16-year high for underrepresented characters in comedy was observed in 2018.

Table 16
Prevalence of Underrepresented Characters On Screen by Film Genre by Year: 2007-2022

Year	% of UR characters Action/Adventure	% of UR characters Animation	% of UR characters Comedy
2007	21.6%	8.1%	23.1%
2008	32.1%	10.5%	27.8%
2009	23.4%	12.4%	24.7%
2010	30%	1.5%	23.4%
2011	25.2%	27.5%	26.8%
2012	29.4%	5.3%	24.1%
2013	26.9%	12.4%	27.6%
2014	24.9%	33.5%	27.2%
2015	28.9%	13.2%	27.3%
2016	27.3%	48.5%	32.1%
2017	28.1%	34%	35.6%
2018	40.3%	35.2%	38%
2019	42.4%	41.1%	37.5%
2020	47.7%	56.2%	26.8%
2021	44.2%	60.2%	22.5%
2022	46.8%	59.2%	36.7%
Total	33.2%	34%	28.3%

Note: All non-White characters were collapsed into an “UR” or underrepresented level.

Focusing on the three largest non White racial/ethnic (i.e., Black, Hispanic/Latino, Asian) groups, we were interested in two additional prevalence indicators: proportional representation and invisibility. We

first looked at the number of films that were at or near (± 2 percentage points) proportional representation with U.S. Census. Second, we calculated the number of movies that erased or rendered a particular racial/ethnic group completely invisible. Invisibility occurred when not one speaking or named character appeared on screen from a specific racial/ethnic group. These two measures were assessed across 500 of the top films from 2018-2022.

As shown in Table 17, 13.6% of the U.S. population identifies as Black.¹¹ Only 16 out of the 100 top grossing movies of 2022 featured Black characters at proportional representation (± 2 percentage points from 13.6%). 2022 was not different from 2021 (14 films) or 2018 (17 films). The number of movies above proportional representation is also displayed in Table 17. Extrapolating from this table, fully 40 films in 2022 were *at or above* U.S. census which was lower than 2021 (45 films) and 2018 (48 films). Fifteen out of 100 movies erased Black characters completely on screen, which was lower than 2021 (20 movies) but not different from 2018 (13 movies).

Table 17
Proportional Representation and Invisibility of Black Characters Across 500 Films: 2018-2022

Measures	2018	2019	2020	2021	2022
# of films w/out any Black speaking chars	13	15	25	20	15
# of films w/proportional representation	17	20	14	14	16
# of films above proportional representation	31	30	20	31	24
U.S. Census	13.6%				
Total Films Per Year	100	100	100	100	100

Hispanic/Latino representation is featured in Table 18. Few films were at or above proportional representation.¹² In 2022, only 3 films featured Hispanic/Latinos as roughly 19.1% of the cast and 10 were above this benchmark. Erasure was even more vast, as 46 of the 100 top movies rendered Hispanic/Latinos invisible. This number is higher than 2021 but similar to 2018.

Table 18
Proportional Representation and Invisibility of Hispanic/Latino Characters Across 500 Films: 2018-2022

Measures	2018	2019	2020	2021	2022
# of films w/out Hispanic/Latino speaking chars	47	44	52	38	46
# of films w/proportional representation	2	2	0	2	3
# of films above proportional representation	4	5	6	10	6
U.S. Census	19.1%				
Total Films Per Year	100	100	100	100	100

Asian representation is illuminated in Table 19. Focusing first on proportional representation, only 17 films were at or near the U.S. Census benchmark.¹³ These number was not different from 2021 (21 movies) or 2018 (20 movies). More films exceeded proportional representation, however. As shown in Table 19, fully 31 movies portrayed a higher percentage of Asian speaking or named characters than the U.S. Census. However, this number did not deviate from 2021 (32) or 2018 (27). Thirty-four of the 100

top movies of 2022 completely erased Asians on screen, however. While this number did not differ from 2018, it was significantly higher than 2021.

Table 19
Proportional Representation and Invisibility of Asian Characters Across 500 Films: 2018-2022

Measures	2018	2019	2020	2021	2022
# of films w/out Asian speaking chars	32	36	46	28	34
# of films w/proportional representation	20	18	16	21	17
# of films above proportional representation	27	27	27	32	31
U.S. Census	6.3%				
Total Films Per Year	100	100	100	100	100

Examining the three largest underrepresented racial/ethnic groups on screen revealed that erasure is real – even post George Floyd’s murder and #stopasianhate. Given these trends, it was important to unpack these analyses to see how women and girls from underrepresented races/ethnicities are faring in entertainment. In Table 20, we explored erasure of women of color across races/ethnicities from 2018 to 2022 (500 films). The results reveal the same troubling trends we have been documenting for years. An epidemic of invisibility is pervasive on screen for girls and women of color.

Table 20
Epidemic of Invisibility Facing Girls/Women On Screen by Race/Ethnicity: 2018-2022

Racial/ Ethnic Group	2018	2019	2020	2021	2022	Total Across 1,600 Movies
White	4	7	10	6	7	82
H/Latinas	70	71	69	57	61	1,086
Black	33	33	52	37	32	685
Asian	54	55	61	52	44	982
AI/AN	99	97	97	98	100	1,578
NH/PI	97	99	99	98	99	1,579
MENA	93	92	89	94	95	1,491
MR/ME	51	45	68	66	70	1,200

Note: Each of the racial/ethnic groups are abbreviated for space reasons. H/L=Hispanic/Latinas, AI/AN=American Indian/Alaska Native, NH/PI=Native Hawaiian/Pacific Islander, MENA=Middle Eastern/North African, MR/ME=Multiracial/Multiethnic.

As shown in Table 20, few movies rendered White girls and women absent. Further, the amount of invisibility in 2022 (7 movies) has not changed from 2021 (6) or 2018 (4 movies). Overall, only 82 out of 1,600 films erased White females on screen. In comparison, females identifying as Native Hawaiian/Pacific Islander and American Indian/Alaska Native are completely missing on screen with no recent signs of improvement across the last 5 years. Few MENA or Multiracial/Multiethnic girls and women appeared on screen. The erasure of girls/women from Hispanic/Latino and Asian communities has decreased from 2018 to 2022. The invisibility of Multiracial/Multiethnic women has increased and the erasure of Black girls and women has not changed from 2018 to 2022.

Moving from all speaking characters, now we turn our attention to leads/co leads driving the plot. Here we were interested in all underrepresented leads/co leads as well as girls/women of color. As shown in Table 21, only 31% of films in 2022 had an underrepresented lead/co lead.¹⁴ This percentage is well below (10.1 percentage points) U.S. Census (41.1%). 2022 (31%) was significantly lower than 2021 (37%) but higher than 2007 (13%). Focusing on girls and women of color, 19% of movies in 2022 featured an underrepresented female in the leading/co leading role. The percentage is nearly identical to 2021 (16%) but substantially higher than 2007 (1%). Of the underrepresented female protagonists in 2022, 30% were Black, 20% Latina, 10% Asian, 40% Multiracial/Multiethnic.

Table 21
Percentage of Underrepresented Leads/Co Leads Across 1,300 Films: 2007-2022

Year	% of UR Leads/ Co Leads	% of UR Female Leads/Co Leads
2007	13%	1%
2008	13%	4%
2009	17%	4%
2010	12%	5%
2011	9%	5%
2012	13%	3%
2013	17%	3%
2014	17%	4%
2015	16%	4%
2016	14%	3%
2017	22%	4%
2018	27%	11%
2019	32%	17%
2020	29%	9%
2021	37%	16%
2022	31%	19%
Total	19.9%	7%

On Screen Portrayal. For on screen portrayal, the relationship between underrepresented characters (White vs. non White) and two contextual variables was assessed: gender (male, female) and parental status (no, yes). The findings for gender are featured in Table 22. Not one racial/ethnic group was depicted reaching gender equality across the 100 top grossing films of 2022. Interestingly, White females were the least likely to be featured in comparison to their White male counterparts (ratio of 2 to 1). Black girls and women, as well as those collapsed into an “other” category, were more likely to be shown than Asian girls and women. However, the latter comparison fell shy of the 5-percentage point criterion.

Table 22
Percentage of Male & Female Characters by Racial/Ethnic Grouping in Top-Grossing Films: 2022

Gender	White	Black	Latino	Asian	Other
--------	-------	-------	--------	-------	-------

% of males	66.3%	59.8%	62.6%	63.4%	60.4%
% of females	33.7%	40.2%	37.4%	36.6%	39.6%
Ratio	1.97 to 1	1.5 to 1	1.68 to 1	1.73 to 1	1.53 to 1

Note: All speaking characters in “other” were Indigenous, Middle Eastern/North African and Multiracial/Multiethnic.

Finally, we examined parental status of characters by race/ethnicity. As shown in Table 23, there were gender differences in 2022 by racial/ethnic group. In terms of males, Asians were more likely to be depicted as parents than White or Black characters, while the difference for Latinos was non-significant. Those from other races or ethnicities were the least likely to be portrayed as parents. For women, White, Asian, and Latina women were more likely than Black women to be parents. Again, Multiracial/Multiethnic women were the least likely to be shown as parents.

Table 23
Percentage of Male & Female Parents by Racial/Ethnic Grouping in Top-Grossing Films: 2022

Gender	White	Black	Latino	Asian	Other
% male parents	32.8%	35%	37.5%	43.8%	14.3%
% female parents	46.2%	37.1%	42.9%	45.3%	27.3%

Clearly, the prevalence and portrayal of characters from underrepresented racial/ethnic groups is still problematic. While we have seen an increase of Asian representation on screen, many other groups have not changed or decreased in terms of their prevalence in cinematic storytelling. To understand the lack of progress, let’s look behind the camera to see who is getting employment opportunities and who is not.

Behind the Camera. A total of 113 directors were attached to the 100 top-grossing films of 2022. Of these, 22 (19.5%) were from underrepresented racial/ethnic groups and 91 were white (80.5%). Of these 22 underrepresented directors, 12 were Asian (54.5%), 4 Black (18.2%), 4 Multiracial/Multiethnic (18.2%), and 2 (9.1%) Hispanic/Latino. If we calculate these percentages out of all directors (White and non White), they drop substantially: White directors 80.5%, Asian 10.6%, Black, 3.5%, Hispanic/Latino 1.8%, and Multiracial/Multiethnic 3.5%.

If we look at all underrepresented directors ($n=276$), 2022 (19.5%) was significantly lower than 2021 (31%) but higher than 2007 (12.5%). 248 of those directors were men of color and only 28 were women of color. The top performing male director was Tyler Perry, with 18 movies over the sample time frame. Jaume Collet-Serra directed 8 films while 5 men of color directed 7 movies: Antoine Fuqua, James Wan, Malcolm D. Lee, M. Night Shyamalan, and Tim Story. The top performing women of color were all tied with 2 films apiece, Ava DuVernay, Chloe Zhao, Gina Prince-Bythewood, Jennifer Yuh Nelson, Kasi Lemmons, and Stella Meghie.

Table 24 provides a more detailed look at underrepresented directors by gender over time. Directors were coded into every single racial and ethnic group with which they identified. As such, the numbers are slightly different than the paragraph above where helmers were put into one mutually exclusive level. Only 92 or 5.2% of the directors were Black men from the 1,600 top films from 2007 to 2022. Even fewer Black women (<1%, $n=15$) were hired to helm a top-grossing picture. Some women worked twice,

bringing the total number of distinct Black women directors to 11 (Ava DuVernay, Chinonye Chukwu, Gina Prince-Bythewood, Janicza Bravo, Kasi Lemmons, Liesl Tommy, Melina Matsoukas, Nia DaCosta, Sanaa Hamri, Stella Meghie, Tina Gordon).

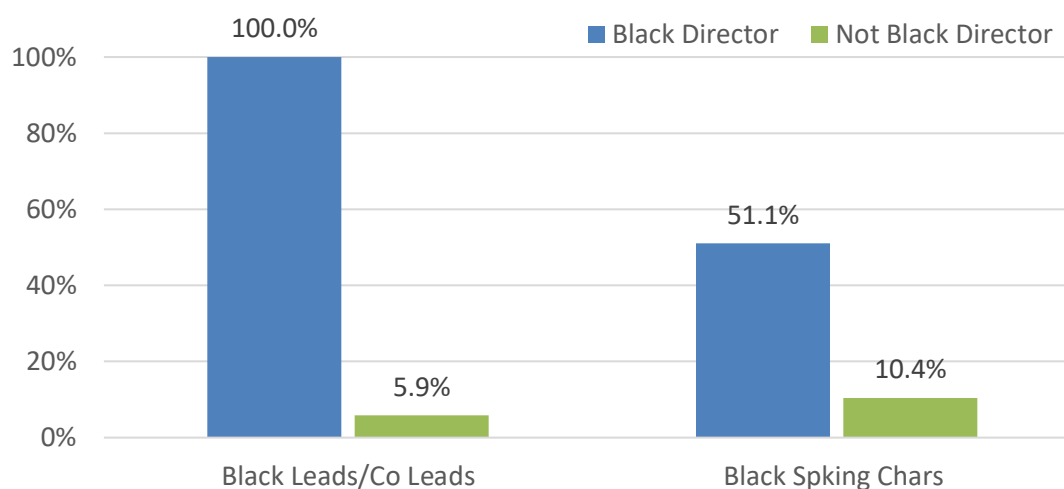
Table 24
Number of Black, Hispanic/Latino, & Asian Directors by Gender & Year: 2007-2022

Year	Black Men	Black Women	H/L Men	H/L Women	Asian Men	Asian Women	Total
2007	8	0	3	0	3	0	112
2008	5	2	2	0	2	1	112
2009	7	0	7	0	1	0	111
2010	5	0	2	0	4	0	109
2011	2	0	3	0	3	1	108
2012	6	0	2	0	2	0	121
2013	7	0	5	0	6	0	107
2014	4	1	8	0	0	0	107
2015	4	0	3	0	6	0	107
2016	7	0	2	1	4	1	120
2017	5	1	8	0	4	0	109
2018	14	1	3	0	4	0	112
2019	6	3	2	2	6	0	112
2020	3	1	4	0	7	4	111
2021	6	3	10	2	13	3	113
2022	3	3	2	0	12	0	113
Total	5.2% (n=92)	<1% (n=15)	3.7% (n=66)	<1% (n=5)	4.3% (n=77)	<1% (n=10)	1,784

In 2022, we assessed whether Black directors (no, yes) were associated with Black characters on screen. As shown in Figure 2, the relationship was substantial. Black directors, in comparison to films with non Black directors attached, depicted more Black leads/co leads (100% vs. 5.9%, respectively) and on screen speaking characters (51.1%, 10.3%, respectively). These findings are presumably due to the fact that Black directors are telling more stories that reflect their experiences. It is also the case that studios and financiers may be more willing to underwrite content where the director's identity and the lead characters identity match. Similar to the argument raised earlier, this latter explanation is problematic and doesn't reflect the range of opportunities afforded to White directors.

Focusing on Hispanic/Latinos, few work behind the camera as directors. As shown in Table 24, only 2 were hired across the 100 top-grossing movies of 2022. 2022 was a significant downturn from 2021, when 12 different Latinos were attached to the 100 most popular films. Overall, only 71 directing jobs have been filled by Hispanic/Latinos. Only five Hispanic/Latino women have directed a top-grossing film across the 16-year time frame (e.g., Charise Castro Smith, Janicza Bravo, Melina Matsoukas, Roxann Dawson, Patricia Riggen). Because only 2 films featured a Hispanic/Latino director in 2022, the analysis looking at the relationship between helmer identity and on screen portrayals of Hispanic/Latinos could not be executed.

Figure 2
Percentage of Black Speaking Characters On Screen by Director Race: 2022



In terms of Asian directors, 2022 was a strong year for male helmers. Twelve different features across the 100 top movies were directed by Asian men. Not one Asian woman director was hired, however. 2022 was slightly lower than 2021, where 16 different Asian directors were attached to the 100 most popular movies. Three of the directing gigs were filled by two women: Chloe Zhao (*Nomadland*, *Eternals*) and Lisa Joy (*Reminiscence*). 2022 and 2021 were notably higher than 2007 where only 3 Asian men directed movies.

Is there a relationship between the presence of an Asian director (no, yes) and the prevalence of Asian leads and speaking characters? The answer is yes! When compared to films with non Asian directors, those with Asian helmers have significantly more Asian leads/co leads (73% vs 0) and speaking characters (73.7% vs. 5.1%) on screen. These findings are consistent with those of women and Black directors and speak to how identity may influence the stories told and casting decisions made.

While the above analyses focus on directors, we were also interested how often casters from underrepresented racial/ethnic groups were working across the 100 most popular films. To this end, we sorted casting directors into one of four identity groups: White women, White men, underrepresented women, underrepresented men. In 2022, 69.8% of casters were White women, 12.5% were White men, 11% underrepresented women, and 6.6% underrepresented men. These statistics are markedly off U.S. Census where 30% of the population is White men, 30% White women, 20% underrepresented men, and 20% underrepresented women.

Pertaining to change, there were more White women casting directors in 2022 (69.8%) than 2021 (58.4%) but less than 2007 (78.7%). For White men, the percentage in 2022 (12.5%) was lower than 2021 (20.8%) but did not change from 2007 (13.4%). While the percentage of underrepresented males has increased from 2007 (<1%) to 2022 (6.6%), no differences in the short- or long-term for underrepresented women were observed. These latter findings are problematic, as underrepresented

women casters were more likely in 2022 to depict girls and women on screen from non White racial/ethnic groups than casting directors who are not underrepresented women (55.1% vs. 33.5%).

Table 25
Underrepresented Status & Gender of Casting Directors by Year: 2007-2022

Year	White Men	UR Men	White Women	UR Women
2007	13.6%	<1%	78.7%	7.1%
2008	18.3%	1.8%	72%	7.9%
2009	15%	0	76.9%	8.1%
2010	16.6%	1.9%	76.4%	5.1%
2011	17.7%	3.2%	72.2%	7%
2012	23.3%	<1%	68.7%	7.4%
2013	18.7%	2.3%	70.2%	8.8%
2014	16.2%	3.8%	68.8%	11.3%
2015	19%	<1%	72.2%	8.2%
2016	15%	1.4%	71.4%	12.1%
2017	19.7%	0	67.4%	12.9%
2018	12.1%	2.9%	72.1%	12.9%
2019	27.4%	2.2%	54.1%	16.3%
2020	14.7%	4.5%	71.8%	9%
2021	20.8%	7.4%	58.4%	13.4%
2022	12.5%	6.6%	69.8%	11%
Total	17.6%	2.4%	70.2%	9.8%

Behind the camera progress has largely stalled save one group. Asian directors are at an all time high in 2021 and 2022, which can account for the significant on screen increases pertaining to Asian speaking characters. Past that, there has really been little to no progress. Up next, we focus on our third historically marginalized identity group: the LGBTQ+ community.

LGBTQ+

In 2014, we began measuring how often and in what context LGBTQ+ characters are shown on screen. In 2022, 2.1% ($n=87$) of 4,169 speaking or named characters across 100 top-grossing films were LGBTQ+. Of the 87 LGBTQ+ characters, 27 were lesbian, 43 were gay, 13 were bisexual, and 5 were transgender.¹⁵ More than 40% of these characters (41.4%, $n=36$) appeared in speaking roles that were inconsequential to the story.

Table 26 shows the frequency of LGBTQ+ speaking characters over time. In 2022, there was no change in the percentage of LGBTQ+ speaking characters compared to 2021 (<1%). The *number* of speaking characters who were LGBTQ+ more than doubled from 2021 to 2022. Compared to 2014, there were more than four times the number of LGBTQ+ characters in 2022. However, the large sample size of characters each year means that even these numerical increases did not result in a difference of 5 percentage points or more.

Table 26
Prevalence of LGBTQ+ Speaking Characters Across 900 Top Grossing Films: 2014-2022

Measure	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total	%
Lesbian	4	7	9	9	17	10	15	7	27	105	<.3%
Gay	12	19	36	16	33	45	12	24	43	239	<1%
Bisexual	5	5	6	6	8	3	2	7	13	55	<0.2%
Transgender	0	1	0	0	0	3	0	3	5	12	<0.5%
Total # of LGBTQ Characters	21	32	51	31	58	61	29	40	87	409	
Total % of LGBTQ Characters	<1%	<1%	1.1%	<1%	1.3%	1.4%	<1%	<1%	2.1%		1.1%

Invisibility and proportional representation of LGBTQ+ characters was also examined. In 2022, 72 of the 100 top films did not feature even one LGBTQ+ speaking or named character on screen. Eighty-four films were missing LGBTQ+ girls/women. See Table 27. Turning to proportional representation, only 3 films depicted LGBTQ+ characters within 2 percentage points of the proportion of LGBTQ people in the U.S. population (10%).¹⁶ A total of 16 movies achieved proportional representation of LGBTQ+ characters between 2014 and 2022.

Turning to the nature of LGBTQ+ portrayals, in 2022, 57.5% ($n=50$) of LGBTQ+ speaking characters were male-identified and 42.5% ($n=37$) were female identified. More than half (58.8%) of LGBTQ characters were White ($n=50$), while 22.4% ($n=19$) were Black, 5.9% ($n=5$) were Hispanic/Latino, 7.1% ($n=6$) were Asian, and 5.9% ($n=5$) were Multiracial/Multiethnic. Of the LGBTQ+ characters, 43.7% ($n=38$) were young adults (21-39 years old, while 42.5% ($n=37$) were middle-aged or older (age 40-64). There were 9 (10.3%) teen LGBTQ+ characters in 2022 and 3 (3.4%) elderly characters. A quarter (26.7%, $n=12$) of the LGBTQ+ characters were shown as parents or caregivers.

Examining transgender portrayals in particular was important. While the highest number of transgender characters across the 900-film sample were observed in 2022, this was a total of 5 characters. Four of the 5 transgender characters in 2022 appeared in one movie (*Bros*). Only 1 transgender character was inconsequential to the plot, which is an improvement from previous years when all transgender characters were incidental.

Table 27
Proportional Representation and Invisibility of LGBTQ Characters Across 900 Films: 2014-2022

Measures	2014	2015	2016	2017	2018	2019	2020	2021	2022
# of films w/out LGBTQ speaking chars	86	82	76	81	76	78	86	77	72
# of films w/proportional representation	1	0	1	2	2	2	2	3	3
LGBTQ people in U.S. Population	10%								
Total Films Per Year	100	100	100	100	100	100	100	100	100

A total of 9 films in 2022 featured an LGBTQ+ lead/co lead. This was the largest number of LGBTQ leads/co leads across the sample of films, and an increase from 2021 (1 LGBTQ+ led/co led film). As only

21 films between 2014 and 2022 had an LGBTQ+ lead/co lead, this means that 42.8% of all films with an LGBTQ lead/co lead appeared in just one year. None of the leads were transgender.

Table 28
Number of LGBTQ Leads/Co Leads by Year

Year	# of LGBTQ Leads/Co Leads	% of LGBTQ Leads/Co Leads	# of Films
2014	2	2%	100
2015	0	0	100
2016	1	1%	100
2017	2	2%	100
2018	2	2%	100
2019	2	2%	100
2020	2	2%	100
2021	1	1%	100
2022	9	9%	100
Total	21	2.3%	900

For the LGBTQ+ community, 2022 was a year in which little changed on screen. Although there was a numerical increase in LGBTQ+ leads/co leads, the percentage of LGBTQ speaking characters remained stagnant. Nearly three-quarters of 2022's top movies were missing LGBTQ+ characters altogether, and this rose to 84 movies when examining how many films lacked LGBTQ+ women. Film continues to minimize and marginalize the stories of the LGBTQ+ community—and change is needed. In the next section, we turn to another group that is often invisible on screen: people with disabilities.

Disability

Since 2015, cataloguing the presence and nature of representation for characters with disabilities has been a focus of this report. In 2022, 1.9% ($n=81$) of all speaking characters were shown with a disability. Most characters (82.7%, $n=67$) had a physical disability (e.g., difficulty with mobility, missing limb), while 33.3% ($n=27$) had a communicative disability (e.g., difficulty with speech, hearing, vision), and 17.3% ($n=14$) had a cognitive disability (e.g., depression, dementia, PTSD). Because characters could be shown with more than one disability, these percentages do not total to 100%.

Table 29
Prevalence of Characters w/Disabilities Across 500 Top Grossing Films: 2015-2022

Measure	2015	2016	2017	2018	2019	2020	2021	2022	Total
% of speaking chars	2.4%	2.7%	2.5%	1.6%	2.2%	1.8%	2.1%	1.9%	2.2%
# of speaking chars	105	124	112	69	101	66	93	81	751

There was no meaningful difference in the percentage of speaking characters with a disability across the 800 films and 8-year timespan of the study. See Table 29. More than half of 2022's top 100 movies failed to feature at least one speaking character with a disability, which is higher than both 2021 (48 films) and 2015 (45 films). Moreover, 76 movies were missing female-identified characters with a disability, on par with 2021 (76 films) and slightly below 2015 (84 films). As shown in Table 30, only 1 of the 800 movies

included in the over-time analysis reached proportional representation of characters with disabilities in comparison to the U.S. population (27%). That film was included in the 2021 sample.¹⁷

Table 30
Proportional Representation and Invisibility of Characters w/Disabilities
Across 800 Films: 2015-2022

Measures	2015	2016	2017	2018	2019	2020	2021	2022
# of films missing speaking chars w/disability	45	38	41	58	48	63	48	54
# of films w/proportional representation	0	0	0	0	0	0	1	0
Disability in the U.S. population	27%							
Total Films Per Year	100	100	100	100	100	100	100	100

Of the characters with disabilities in the top films of 2022, most were male-identified (69.1%, $n=56$) while 30.9% ($n=25$) were female-identified. Three-quarters (76%, $n=57$) of characters with disabilities were White and 24% ($n=18$) were from underrepresented racial/ethnic groups. Looking to age, fewer than 10% of characters with disabilities were children (6.5%, $n=5$) or teens (2.6%, $n=2$), while 31.2% ($n=24$) were young adults (age 21 to 39) and 59.7% ($n=46$) were middle aged (age 40-64) or elderly (age 65+). Only 1 character with a disability in 2022 was LGBTQ+. Out of all 800 films examined, just 10 characters shown with a disability were LGBTQ+. None of those characters was transgender. A mere 15 characters with a disability (34.9% of all characters with a disability) in 2022 were shown as parents.

Table 31
Number of Leads/Co Leads w/Disabilities by Year

Year	# of Leads/Co Leads with a Disability	% of Leads/Co Leads with a Disability	# of Films
2015	10	10%	100
2016	15	15%	100
2017	14	14%	100
2018	9	9%	100
2019	19	19%	100
2020	11	11%	100
2021	9	9%	100
2022	14	14%	100
Total	101	12.6%	800

The number of films with a lead or co lead with a disability was also assessed. In 2022, 14 films featured a lead/co lead character with a disability (see Table 31). Of the 14 films with a lead/co lead featuring a disability, 11 featured a male character and 3 a female character. The majority of films with leads/co leads with a disability ($n=11$) featured a White lead/co lead, while the remaining movies featured 1 Asian lead/co lead, 1 Hispanic/Latino lead/co lead, and 1 Multiracial/Multiethnic lead/co lead. Only 1 lead/co lead with a disability was part of the LGBTQ+ community. There was no meaningful change in

the percentage of films with a lead/co lead with a disability in 2022 compared to 2021 (9 films) or 2015 (10 films). The high point for films with a protagonist with a disability was in 2019 (19 films).

Conclusion

The Annenberg Inclusion Initiative conducts the most comprehensive, longitudinal investigation into inclusion on screen and behind the camera in film. Each year, we assess how the industry moves closer to—or away from—inclusion, and present where progress is needed. The report now covers 16 years and 1,600 top-grossing films. In this section, we summarize the major results of the study and offer a set of solutions to advance equality in the film industry.

Girls and Women Can Lead, but Little Other Progress in Top Films

In 2022, girls and women were the focus of 44 of the 100 top-grossing films. This was more than double the number of female-identified protagonists in 2007 but revealed little change from 2021 (41 films). While film producers and executives may have come to recognize the value of telling stories focused on girls and women, the data overall suggest that this does not extend to casting across all speaking characters. Girls and women still comprised roughly a third of all characters on screen, and those characters were primarily younger than 40. After years of advocacy and activism, the film industry still views girls and women as filling a limited slice of the world.

Behind the camera, there is also still little to celebrate. Though the years in which only 2 women worked as directors remain in the past, fewer than 10% of directors were women in 2022. The high point for women directors came in 2020—a year of box office turmoil. Even as the number of women directors reach the double digits, there is still a significant gap to close for women in this leadership role. Similar trends emerged for women writers. The percentage of women in this role reached a zenith in 2019 at only 19.1%, and subsequently fell to 16.3% in 2022, a percentage not meaningfully different than 2007. For women producers and composers, however, there have been significant gains since 2007. In both positions, 2022 was a 16-year high point for women. Yet, there is little to celebrate as women still filled only a quarter of producer roles and less than 10% of composing positions. Ensuring that the access and opportunity afforded to women behind the camera continues to increase will be essential to creating meaningful long-term change.

Representation for Racial/Ethnic Groups Needs Revision

This year's report offers insights into the representation of characters from specific racial/ethnic groups both before and after the protests and commitments made in 2020. Though the percentage of White characters decreased non-significantly from 2019 to 2022, the only significant increase in representation observed was for Asian characters. For all underrepresented characters, however, there were gains observed in action/adventure and animated films. Looking to proportional representation, fewer than half the films in 2022 featured Black characters in proportion to the U.S. population, while 48 movies depicted Asian characters in line with or above population metrics. The results for Hispanic/Latino characters, however, remained bleak; only 9 films in 2022 reached or exceeded proportional representation.

Invisibility also remains an issue for characters from underrepresented racial/ethnic groups, particularly girls and women of color. Thirty-two films featured no Black/African American female characters, while 61 were missing Hispanic/Latinas, and 44 were devoid of Asian girls/women. When we look beyond these groups, there was no representation of American Indian/Alaska Native female characters in 2022. 99 films were missing Native Hawaiian/Pacific Islander girls/women and 95 films were missing Middle Eastern/North African female characters. A total of 70 movies did not feature any Multiracial/Multiethnic girls/women in 2022. Each year we report on the complete erasure of women of color from storytelling and the numbers change very little. Yet, addressing the disparities in casting for underrepresented girls and women is one of the fastest ways to increase the portrayal of underrepresented groups overall. Such a lack of progress prompts the question of whether Hollywood wants to change (which, it does not seem to want to do) or whether it would rather rely on platitudes and promises instead of making progress.

Behind the camera, little has changed for directors from underrepresented racial/ethnic groups. Out of all directors in 2022, 10.6% were Asian, 3.5% were Black, 1.8% were Hispanic/Latino, and 3.5% were Multiracial/Multiethnic. Only 3 women of color worked on 2022's top movies as directors—the same number as in 2008. The lack of progress behind the camera for directors of color, and women of color in particular, is a key indicator that the promises and posturing companies made in 2020 contributed little to overall change.

LGBTQ Representation is Left Behind

We first reported on the prevalence of LGBTQ characters when examining the top films of 2014. In that time, there has been no meaningful increase in the percentage of LGBTQ characters in top movies. Numerical shifts do suggest that LGBTQ characters are included more often in films than they were in the recent past. Nearly three-quarters of films did not feature an LGBTQ character, and 84 were missing LGBTQ girls/women. Yet these figures reflect a decrease from the 86 movies in 2014 missing an LGBTQ character and the 96 that were devoid of LGBTQ girls/women. 2022 saw a significantly higher number of lesbian characters (27) than 2021 (7) or even the previous high point, 2018 (17 characters). 2022 also saw the inclusion of the highest number of transgender characters (5) across the 9 years studied. Notably, four of the five transgender characters filled supporting roles. However, at the same time, just one movie (*Bros*) was responsible for 80% of the transgender portrayals in 2022.

While some indicators may seem to suggest that LGBTQ representation is on the rise, others reflect that little has changed. More than half of LGBTQ characters were male-identified, and nearly two-thirds were White. Few teens or elderly characters were shown as LGBTQ, and the majority of LGBTQ characters were not parents or caregivers. Thus, the image of the LGBTQ community in popular film is one that—when not defaulting to invisibility—continues to advance a portrait of White, male, adult characters. The spectrum of voices affiliated with the LGBTQ community continues to be left out of top films.

Characters with Disabilities are Consistently Missing in Film

There has been no change in the representation of characters with disabilities since this community was included in our reporting across top films from 2015. This means that across 800 movies, a mere 2.2% of speaking characters were shown with a disability—including just 1.9% of the speaking characters in 2022. More than half of the films from 2022 were missing characters with disabilities altogether, and

three-quarters (76 movies) did not depict a female-identified character with a disability. Only 1 movie out of 800 examined showcased characters with disabilities in proportion to the U.S. population. Film continues to be a place that renders a quarter of the population invisible on screen.

When characters with disabilities did appear on screen, they were predominantly male, White, and adult. Only 1 character with a disability in 2022 was LGBTQ, and one-third of characters with disabilities were parents. Most characters were shown with physical disabilities. These findings do more than illuminate what is lacking in film. They reflect that storytellers have a narrow and limited conception of who people with disabilities are and how prevalent this population is. People with disabilities fill the worlds of our workplaces, our families, and our public spaces—yet remain invisible in the imaginary worlds created by filmmakers.

Solutions for Change

Annually, we offer solutions that industry leaders can use to create change. Given the lack of progress across many data points in this investigation, it is unclear if the same leaders have read or listened to these suggestions. We suspect they do not read this far into the report. However, we once again present two tactics that must be utilized to increase inclusion in top films and refer interested readers to our prior investigations for additional solutions.

Embrace Process that Create Different Outcomes

Even as the entertainment industry grapples with its future during the WGA and SAG-AFTRA strikes in 2023, some processes are very much stuck in the past. These are the very methods that result in biased outcomes and perpetuate inequality. Previously, we have put forward the idea that studios create target inclusion goals to identify where they want to see change. We have also recommended the idea that content creators embrace the idea to “Just Add Five” female-identified characters (representing different racial/ethnic groups, the LGBTQ community, and people with disabilities). Both tactics are designed to address the implicit biases that drive casting decisions and have resulted in skewed data for years. By thinking about the numerical representation of different groups, producers and executives will be able to determine whether there has been actual change rather than estimating progress based on feelings, a few notable examples, or wishful thinking.

At the core of these ideas is the need for executives and filmmakers to examine the way that processes such as casting, greenlighting films, hiring for production, and even marketing are designed to or have relied on exclusionary practices. For example, the language that is used to justify hiring (e.g., looking for “fit,” or a “muscular” director), the little time afforded for crewing up a production, or even the perceptions of audiences that still affect marketing. By relying on “business as usual” the entertainment industry defaults to processes that have done little to open access and opportunity to individuals from all backgrounds. It is imperative that these procedures be re-examined and re-designed if different and more equitable outcomes are to occur.

Use Criteria to Guide Decision-Making

To counter subjective decisions that result in biased outcomes, one strategy is to utilize clear criteria in hiring and casting practices. Our previous reports and other writing have extensively covered how

objective decision-making is powered by identifying clear criteria for success and using these criteria in the review of applicants or potential hires. Yet, this practice has largely gone unused.

Companies must create criteria for each position they are evaluating, then agree upon the criteria collectively, and use it in the review process—including interviewing and auditions. This is an essential way to reduce the impact of psychological factors, such as social dominance orientation, that can drive biased decision-making. Criteria is especially important in an industry in which all too often jobs go to frequent collaborators, friends, or other familiar individuals rather than to the person who best meets the identified skills and qualifications to complete a task. By being explicit about what is needed to be successful, companies can avoid both implicit and explicit biases that result in few opportunities for people from marginalized communities and replicate the same trends we see across film each year.

These two solutions are broad in nature and encompass more specific tactics that we have written about and discussed before. At the core however, the goal is to encourage companies and individual decision-makers to rely more on objective metrics and equitable process when hiring and casting. Doing so can circumvent biases that consistently result in not only skewed data points, but the consistent exclusion of talented people from all backgrounds.

Limitations

All research has limitations that must be acknowledged. Each year we discuss one specific limitation of this longitudinal study. By analyzing popular and theatrically released content, our work summarizes trends across the most widely seen films with the highest potential for revenue. This limits our ability to make claims about streaming films or other forms of entertainment—though our work in other studies does provide an indication of how inclusive some platforms or content might be. In this study we also must acknowledge that due to the coronavirus pandemic, the theatrical market in 2020 and 2021 was notably different from the years before and the subsequent recovery in 2022. Films included in the samples for those years may differ in crucial ways (smaller budgets, independent distributors) from those in previous years or in 2022. For that reason, we have cautiously discussed trends in those years to avoid overstating progress in an atypical set of films.

Overall, this report once again demonstrates that entertainment industry leaders have not fulfilled their goals for greater inclusion in film. As the industry grapples with its future, confronting the ways its past has marginalized and excluded talented people in the past is essential to charting a new path. Business as usual cannot continue—at least, it cannot continue if film hopes to showcase the multitude of diverse voices and perspectives that will and have captured the attention of audiences around the world. It's time for change.

Footnotes

1. The footnotes in this report closely mirror or even contain exact phrasing of notes used in our report published in 2020. This was done to not only ensure that details were provided consistently but in areas where absolutely nothing has changed, we use templated language. No one seems to be reading the footnotes anyway. Information regarding study methodology (sample, units of analysis, measures) is available in previous reports at the Annenberg Inclusion Initiative website: <https://annenberg.usc.edu/research/aii>. Footnotes for this paper highlight information relevant to 2020-22. Other details on conceptualization of measures are available in prior studies.

Each year our sample is pulled from Box Office Mojo. For 2020-22, we captured this information once box office was closed and no remaining films in theaters could impact domestic revenue. Only fictional films were included in the analysis. Any deviation in this report from our *Inclusion in the Director's Chair* study was due to changes in the list of films pulled for that study and this one.

Our unitizing and reliability coefficients per measures are calculated every year. Given that they replicate what we have found in the previous 12 years of doing this study, we have chosen to not report the statistics here. Please email us for information on unitizing reliability as well as variable reliability using the Potter & Levine Donnerstein (1999) formula.

It is important to note that each film was coded by 3 coders and unitizing and reliability were calculated per movie. This is necessary as film, unlike TV, features so many more speaking characters that only utter one or a few words. When we finished the 3 years reported on for this update (2020, 2021, 2022), the first author noticed that the total number of speaking characters was lower than previous years. As such, the entire leadership team of the Annenberg Inclusion Initiative “quality checked” the last 300 movies (watched a fourth time) to pick up any characters or coding decisions that may have been missed or misjudged by the research assistants. While this significantly increased the total number of speaking characters per year from 2020-2022, the percentages hardly budged. This is standard protocol and a procedure we have instituted yearly for this report.

2. U.S. Census Bureau (2023). Quick Facts. Retrieved August 10, 2023 from <https://www.census.gov/quickfacts/fact/table/US/SEX255219#SEX255219>
3. Genre distinctions were made by using Box Office Mojo and IMDbPro descriptors.
4. 18 actors drove the storylines of 5 ensemble films. Eleven (61.1%) actors were male and 7 (38.9%) were female.
5. See Smith, S.L., Choueiti, M., Pieper, K., Yao, K., Case, A., & Choi, A. (2019). Inequality in 1,200 Popular Films: Examining Portrayals of Gender, Race/Ethnicity, LGBT & Disability from 2007 to 2018. Annenberg Inclusion Initiative. <http://assets.uscannenberg.org/docs/aii-inequality-report-2019-09-03.pdf>
6. See Smith, S.L., Choueiti, M., Pieper, K., Case, A., & Choi, A. (2018). Inequality in 1,100 Popular Films: Examining Portrayals of Gender, Race/Ethnicity, LGBT & Disability from 2007 to 2017. Annenberg Inclusion Initiative. <http://assets.uscannenberg.org/docs/inequality-in-1100-popular-films.pdf>
7. For measures examining positions behind the camera, all above the line information was pulled from IMDbPro.com per film. The information was gathered per person using database information from

our previous studies as well as online sources (e.g., Variety Insight, Studio System). In cases where judgments were difficult or impossible to ascertain (i.e., no online information about identity), we contacted the individual in question or members of their creative team (e.g., agent).

8. Casting directors were obtained using IMDbPro.com. In situations where IMDbPro did not list a casting director, film credits were examined. Only individuals credited as 'casting director' or given the credit 'casting by' were included. Across 1,600 films, 33 movies did not credit a casting director and were excluded from analyses. Judgements for gender and race/ethnicity were gleaned from Annenberg Inclusion Initiative databases and online sources (e.g., Variety Insight, Studio System), as well as direct contact with casting directors or their teams. We were unable to confirm the racial/ethnic identity of 24 casting directors out of 2,473. These were excluded from analyses related to race/ethnicity.
9. U.S. Census Bureau (2023).
10. The percentage of each race/ethnicity across 16 years is presented in Table 32 below. Percentages sum to 100 in each row, with some deviation due to rounding.

Table 32
Prevalence of Character Race/Ethnicity On Screen by Year: 2007-2022

Year	White	Black	Latino	Asian	AI/AN	NH/PI	MENA	Multiracial
2007	77.6%	13.0%	3.3%	3.4%	0.1%	0.1%	2.4%	<0.1%
2008	71.2%	13.2%	4.9%	7.1%	0.2%	0.4%	2.8%	0%
2009	76.2%	14.7%	2.8%	4.7%	0.2%	0.1%	1.2%	<0.1%
2010	77.6%	10.3%	3.9%	5.0%	0.4%	0.1%	2.6%	0%
2011	77.1%	9.1%	5.9%	4.1%	0.4%	0.4%	0.7%	2%
2012	76.3%	10.8%	4.2%	5.0%	0.2%	<0.1%	3.3%	0%
2013	74.1%	14.1%	4.9%	4.4%	0.3%	0.0%	1.1%	1%
2014	73.1%	12.5%	4.9%	5.3%	0.1%	<0.1%	2.9%	1%
2015	73.7%	12.2%	5.3%	3.9%	0.3%	0.3%	0.7%	4%
2016	70.8%	13.5%	3.1%	5.6%	0.1%	0.7%	3.4%	3%
2017	70.7%	12.1%	6.2%	4.8%	0.5%	0.1%	1.7%	4%
2018	63.7%	16.9%	5.3%	8.2%	<1%	0.4%	1.5%	4%
2019	65.6%	15.7%	4.9%	7.2%	0.4%	0.2%	1.6%	4%
2020	58.3%	9.5%	5.6%	19.6%	0.2%	0.2%	3.4%	3%
2021	58.8%	14.3%	8.6%	13.0%	0.1%	0.2%	1.3%	4%
2022	61.7%	13.4%	5.2%	15.9%	0.1%	0.1%	1.5%	2%

11. U.S. Census Bureau (2023).
12. U.S. Census Bureau (2023).
13. U.S. Census Bureau (2023).
14. 18 actors drove the storylines of 5 ensemble films. 17 were White and 1 was Black/African American.

15. Information and context presented on screen led research assistants to identify five transgender characters. While there may have been additional transgender actors across the sample, those portrayals lacked sufficient information for research assistants to regard the depictions as transgender characters.
16. Powell, L. (2021). We Are Here: LGBTQ+ Adult Population in United States Reaches At Least 20 Million, According to Human Rights Campaign Foundation Report. Retrieved December 20, 2022 from <https://www.hrc.org/press-releases/we-are-here-lgbtq-adult-population-in-united-states-reaches-at-least-20million-according-to-human-rights-campaign-foundation-report>
17. U.S. Census Bureau (2018). Americans with Disabilities: 2014. Retrieved August 27th, 2020 from: <https://www.census.gov/library/publications/2018/demo/p70-152.html>

Acknowledgements

We are indebted to the support of the Annenberg Foundation, especially Wallis Annenberg and Cinny Kennard, for their ongoing commitment to our work. The Annenberg Inclusion Initiative also receives financial support from a range of individuals and organizations. We are grateful to The David & Lura Lovell Foundation and The Pritzker Pucker Family Foundation for their support as well. Our Annenberg Inclusion Initiative staff also merits recognition for their hard work on this and every project we complete. Thank you to Bryan Davis, Terrell Shaffer, Brooke Kong, Matthew Davis, Al-Baab Khan, and Ashley Kolaya. Finally, we could not complete this work without the assistance of our outstanding student research assistants, many of whom participated in this research project from across the U.S. Thank you for your efforts!

Annenberg Inclusion Initiative Student Research Team

Aaron Villareal	Emily Marroquin	Nadira Noor
Aastha Jani	Ethan Huang	Ni Huang
Aerin Oh	Feben Worku	Olivia Corish
Aimee Christopher	Garima Danidhariya	Olivia Mossler
Alexa Avila	Gretchen Rudolph	Olu Ajayi
Alexis Gosselin Escamilla	Hajar Kamel	Paulene Ng Chee
Alice Chiang	Isabel Gonzalez	Pepper Campbell
Allison Walsh	Jade Bolton	Rianne Aguas
Amanda Fassett	Jalen Short	Ronny Hu
Ana Tessier	Jasmine Chang	Roxette De Jesus Primero
Andrew Quintero	Jenna Ricter	Safira Khan
Anish Lahorani	Jennifer Lopez	Samuel Fredericks
Annie Nguyen	Jessica Bukowski	Sam Stewart
Anoushka Sharma	Johannah Suegay	Sasha Bocq
Anuheha Kanē	Jonathan Beyer	Shanaya Khubchandani
Athena Pham	Julia Zara	Shaneen Upal
Bonnie Chen	Julianna Birlin	Shefali Murti
Brandon Tam	Kailin Lu	Sheury Soto
Camryn Robinson	Karyna Rodriguez	Simi Situ
Carmela Van der Meulen	Kenneth Kim	Smriti Marar
Celia Hidell	Kiana Ong	Sophia Yang
Daniel Lee	Kiley McKay	Sul Yoo
Danni Shuai	Lauren Milstein	Sydnee Yu
Deeptavarna Mummineni	Liv Boehler	Twesha Dikshit
Derin Ilgar	Logan Berges	Vicky Manwani
Diana Limon-Herrera	Louis Wong	Vivienne Yang
Drew Norman	Manessah DeChabert	Xinchi Wang
Eduardo Ocampo	Mariana Ramirez	Xinyang Zhang
Eliana Rosenthal	Miguel Bernas	YanJun Liu
Emily Baik	Myra Wu	Yifan Jiang